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**DRAFT BASIC ASSESSMENT REPORT FOR THE ESTABLISHMENT  
OF A CHURCH BUILDING AND ASSOCIATED PARKING AND CIVIL  
SERVICE INFRASTRUCTURE ON PORTION 39 OF THE FARM  
NIETGEDACHT 535 JQ, (PART OF THE NIETGEDACHT X 4  
TOWNSHIP) CITY OF JOHANNESBURG, GAUTENG**

**APPLICANT:**  
**IMPACT FOR CHRIST MINISTRIES**

**GAUT REF NUMBER: TO BE RECEIVED**

**MARCH 2026**



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Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2014 (Version 1)

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**Kindly note that:**

1. This Basic Assessment Report is the standard report required by GDARD in terms of the EIA Regulations, 2014.
2. This application form is current as of 8 December 2014. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
3. A draft Basic Assessment Report must be submitted, for purposes of comments within a period of thirty (30) days, to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken.
4. A draft Basic Assessment Report (1 hard copy and two CD's) must be submitted, for purposes of comments within a period of thirty (30) days, to a Competent Authority empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application.
5. Five (5) copies (3 hard copies and 2 CDs-PDF) of the final report and attachments must be handed in at offices of the relevant competent authority, as detailed below.
6. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
7. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
8. An incomplete report may lead to an application for environmental authorisation being refused.
9. Any report that does not contain a titled and dated full colour large scale layout plan of the proposed activities including a coherent legend, overlain with the sensitivities found on site may lead to an application for environmental authorisation being refused.
10. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the application for environmental authorisation being refused.
11. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
12. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
13. Although pre-application meeting with the Competent Authority is optional, applicants are advised to have these meetings prior to submission of application to seek guidance from the Competent Authority.



**DEPARTMENTAL DETAILS**

Gauteng Department of Agriculture and Rural Development  
Attention: Administrative Unit of the of the Environmental Affairs Branch  
P.O. Box 8769  
Johannesburg  
2000  
Administrative Unit of the of the Environmental Affairs Branch  
Ground floor Diamond Building  
11 Diagonal Street, Johannesburg  
Administrative Unit telephone number: (011) 240 3377  
Department central telephone number: (011) 240 2500

(For official use only)

NEAS Reference Number:						
File Reference Number:						
Application Number:						
Date Received:						

If this BAR has not been submitted within 90 days of receipt of the application by the competent authority and permission was not requested to submit within 140 days, please indicate the reasons for not submitting within time frame.

N/A

Is a closure plan applicable for this application and has it been included in this report? If not, state reasons for not including the closure plan.

N/A

Has a draft report for this application been submitted to a competent authority and all State Departments administering a law relating to a matter likely to be affected as a result of this activity?

**YES**

Is a list of the State Departments referred to above attached to this report including their full contact details and contact person?

**YES**

If no, state reasons for not attaching the list.

Have State Departments including the competent authority commented?

If no, why?

This draft report is presently submitted to the public and authorities for comment. Comments are to be received by 11 May 2026. Comments received on the Draft BAR will be included in the Draft BAR submitted to the GDEnv.

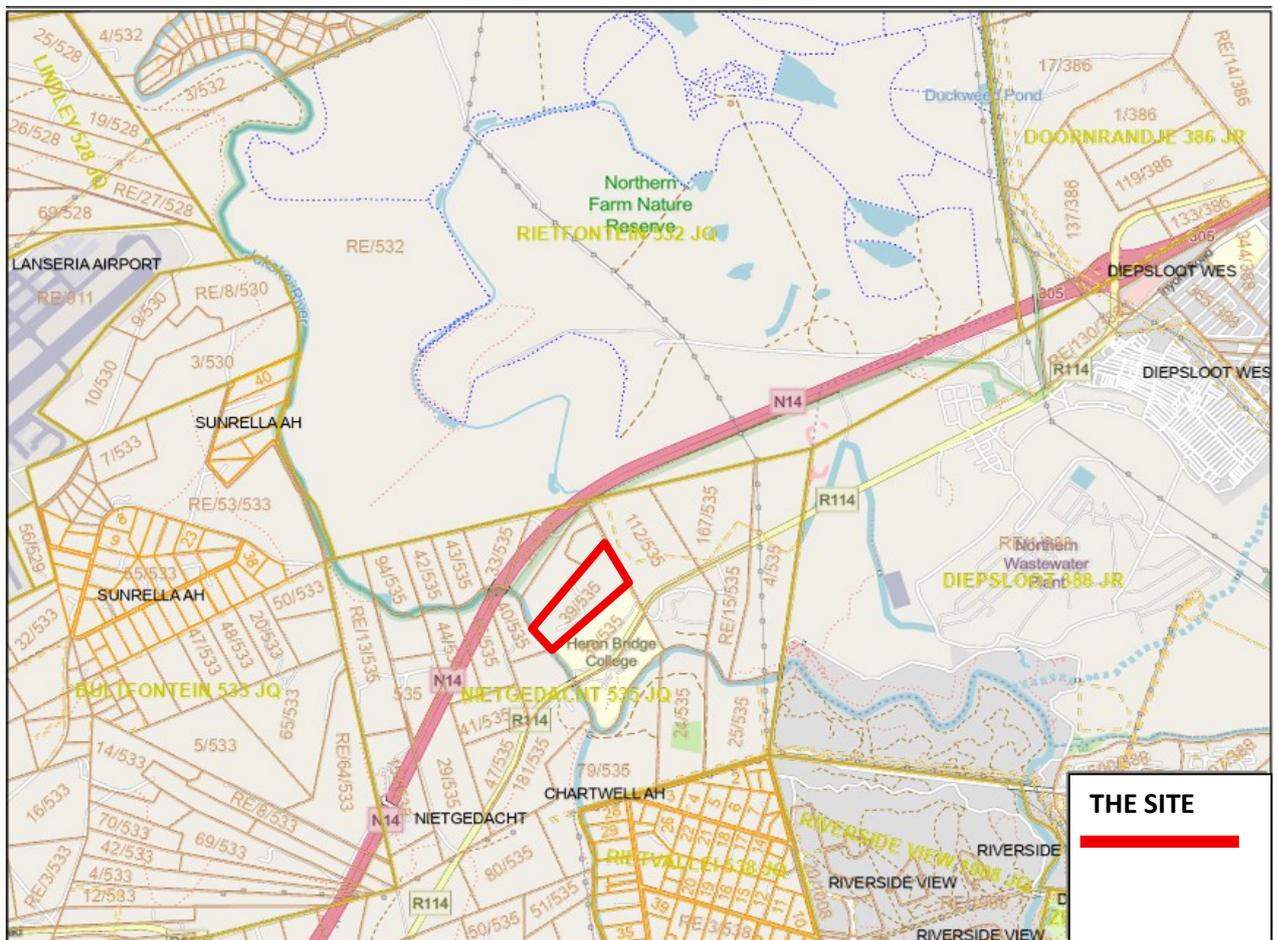
**SECTION A: ACTIVITY INFORMATION**

**1. PROPOSAL OR DEVELOPMENT DESCRIPTION**

Project title (must be the same name as per application form):

**BASIC ASSESSMENT APPLICATION FOR THE ESTABLISHMENT OF A CHURCH BUILDING AND ASSOCIATED PARKING AND CIVIL SERVICE INFRASTRUCTURE, ON PORTION 39 OF THE FARM NIETGEDACHT 535 JQ, (PART OF THE NIETGEDACHT X 4 TOWNSHIP) CITY OF JOHANNESBURG, GAUTENG**

**Figure 1: Project Locality**



Select the appropriate box

The application is for an upgrade of an existing development

The application is for a new development

Other, specify

Does the activity also require any authorisation other than NEMA EIA authorisation?

YES	NO
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If yes, describe the legislation and the Competent Authority administering such legislation

Water Use License (WUL) in terms of Section 21 of the National Water Act, 1998 (Act No. 36 of 1998), will be submitted to the Department of Water and Sanitation (DWS) for the township. The following water uses, as contemplated in Section 21 of the NWA, are associated with the proposed development: Section 21(c): Impeding or diverting the flow of water in a watercourse, Section 21(i): Altering the bed, banks, course or characteristics of a watercourse, Section 21(g) Disposing of waste in a manner that may impact the water resource (package plant), and Section 21(f) Discharging of waste water into a water resource.

If yes, have you applied for the authorisation(s)?	YES	<b>NO</b>
If yes, have you received approval(s)?	YES	<b>NO</b>

**Describe the activity and associated infrastructure, which is being applied for, in detail**

*Impact for Christ Ministries NPC (IFCM)* are establishing a township on a portion of Portion 39 of the Farm Nietgedacht 535 JQ, to be known as Nietgedacht X 4. *Impact for Christ Ministries NPC (IFCM)* are applying to develop a church building and associated parking & civil service provision as part of the Nietgedacht X 4 township. Portion 39 of the Farm Nietgedacht 535 JQ is located between the N14 highway and the R114 route, along Southernwoods Road, in the City of Johannesburg Municipality. The Heron Bridge Sports Complex lies adjacent south of the property. Life Riverfield Lodge rehabilitation and step-down facility is located adjacent north of the property.

The church building will be optimised to operate as a design college during the week, with the required parking for the alternating use of the building. (The college will not have the same operating hours as the church, and therefore, the church parking will be available for the college to use).

The proposed structure will include the following functions:

- Classrooms for Sunday School and Bible School – these activities take place before or after services, and may also be
- accommodated during the week (especially Bible School classes)
- Ablutions
- Mothers' Room
- Circulation areas, to include mobile coffee stations and a bookstore
- Clergy Administrative Area
- Private Office and Boardroom area for the prophet
- 736 parking bays are required, and at least 3 bus parking spaces.

The proposed building and parking area will cover 4,722m<sup>2</sup>. Following the land's gradient, the building's design provides three floors: lower ground, ground, and first. Only two storeys will be above ground floor level.

The proposed site layout provides **access** to and from Southernwood Road, a right-of-way servitude on the property's eastern boundary. Two access/exit points will be provided from Southernwood Road, to the proposed development on Portion 39 of the farm Nietgedacht 535 JQ.

Hamatino Consulting Traffic Engineers have prepared the traffic impact assessment (TIA) for the proposed church / college building, see Appendix G. The report considers traffic counts and the anticipated increase in traffic volumes, especially on Sundays. The TIA indicates that the development be supported from a traffic engineering point of view. The Southernwoods Road / R114 Intersection must be upgraded by including a butterfly weaving lane. The upgrading of this intersection will sufficiently mitigate the existing and expected future delays at this intersection. The upgraded intersection will still yield sufficient capacity by the horizon year 2030. The development access intersection is expected to be operating at an acceptable level of service by the horizon year 2030, and sufficient shoulder and stopping sight distances do exist at the existing access intersection.

The traffic engineers confirm that no further intersection upgrading other than the above is required. The existing intersection locality is temporary, as the existing R114 road (K52) will be re-aligned in future towards the north. This existing intersection will therefore become redundant at that point in time (anticipated to be 2030 and beyond).

**Eskom** is the supply authority for the site, and the property has access to its existing feeder line. Eskom confirmed that its network has sufficient capacity for this development, despite its limited capacity in this area. From an energy usage point of design, the following should be considered: Energy efficient electrical stoves or gas stoves, Gas and/or solar geysers or heat pumps, Energy efficient lighting, i.e., LED. Controlled via time switches and motion detectors, Solar PV/UV systems, and a Battery/Invertor system.

Triple 3 Engineering (Pty) Ltd undertook the **Outline Services Report (OSR) for civil services** for the proposed township. See Appendix G. No bulk municipal **water services** are available in the vicinity of the development. A new 110mm diameter Water Main will have to be constructed for about 1.35 km to provide a water connection to the development. The required water connections will be designed by - and constructed under supervision of - Triple 3 Engineering after approval had been obtained from The City of Johannesburg's Municipality. The new external water main will be constructed from 10th Road, south of the development, all along the boundary of 24/525/JQ crossing the river through 36/535/JQ and underneath the K52 into Southernwoods Road reserve area. Servitudes will need to be registered over 24/535/JQ and 36/535/JQ. The rest of the water main will be located in road reserve areas (See Appendix G and Section D2 of this report). Separate Environmental and Water Use Authorisations will be submitted for this external water main connection.

The existing size of the tie-in water main, [75mm dia uPVC water main in 10th Road; necessitates that **onsite water storage** must be provided. The above ground reservoir will Supply 48 Hour Storage for domestic use as well as storage for a 2-hour firefighting supply. A booster pump will be provided to supply pressure to the network from the reservoir.

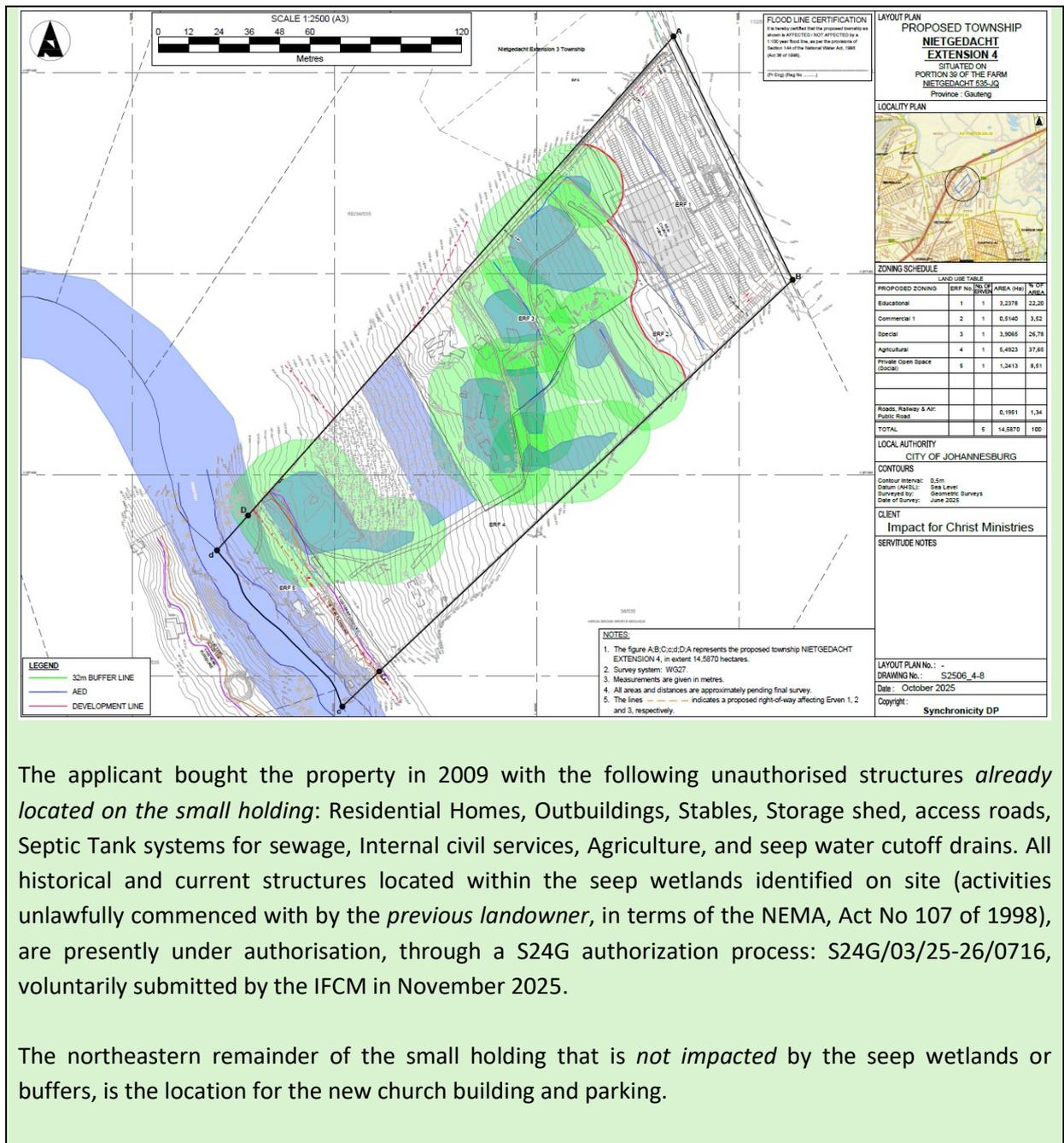
No bulk municipal sewerage services are available in the direct vicinity of the Proposed Development. It is therefore proposed to construct a sewer package plant for the development, in the north-western corner of the site. See Appendix G and section D, Liquid effluent (domestic sewage) of this report. The bulk of the internal sewer network for the development will drain via a gravitational sewer pipe system to this package plant. The Package plant will remain private together with all the internal infrastructure. The applicant is responsible to maintain the plant.

The design of the **stormwater system** (by Triple 3 Group Engineering PTY LTD) was assessed from a combined hydrological, hydraulic, vegetation, soils and geological view point whereby relevant site constraints which will influence the erosion and sediment control plan was identified. The bulk of the **stormwater** emanating from the hardened area of the site, will discharge into an attenuation pond which will be constructed on the north-western boundary on Erf 4. See Appendix G and Section D5 of this report. From the attenuation pond, stormwater will discharge through a  $\pm 120$  m long, 450mm diameter pipe system on the northern boundary of Erf 4, where it will discharge into a stilling basin to ensure an unconcentrated release of the stormwater discharge into the natural watercourse (Jukskei River). The attenuation pond will have the capacity to attenuate the difference between the pre-development and post-development flows for both the 1:5-year and the 1:25-year stormwater scenarios.

The discharge pipe downstream of the development will be deemed as an external system as it discharges into the Jukskei River. On completion the City of Johannesburg Municipality will take over the external storm water system. However, safety & security measures as well as maintenance of the attenuation pond are to be provided by the Property Owners as the pond together with the piped system upstream of it, will remain private.

The internal stormwater drainage will be managed on surface, where after an underground piped drainage system will be installed for the 1:25-year return period storm so as to ensure that the full 25-year storm event, across the hardened areas, ends up in the attenuation pond via the piped system. Allowance has been made for the 1:100-year storm to traverse the site in defined channels (which includes the internal parking and road system) without causing any damage to buildings. Both the piped (for minor storm) and overland (for major storm) systems will discharge into the attenuation pond located on the north-western boundary of Erf 4. Currently it is anticipated that an attenuation pond structure with a sandwich wall perimeter will be used. On completion, the owners of the development will take over and maintain the internal stormwater system and associated attenuation pond.

Limnology PTY LTD was appointed for the aquatic ecosystems condition and impact ratings for the project. Various seepage wetlands associated with halfway house granites were observed on site. The wetlands are present in and around existing infrastructure constructed by the previous owners of the site. The wetlands observed on site are all seepage wetlands.



The applicant bought the property in 2009 with the following unauthorised structures *already located on the small holding*: Residential Homes, Outbuildings, Stables, Storage shed, access roads, Septic Tank systems for sewage, Internal civil services, Agriculture, and seep water cutoff drains. All historical and current structures located within the seep wetlands identified on site (activities unlawfully commenced with by the *previous landowner*, in terms of the NEMA, Act No 107 of 1998), are presently under authorisation, through a S24G authorization process: S24G/03/25-26/0716, voluntarily submitted by the IFCM in November 2025.

The northeastern remainder of the small holding that is *not impacted* by the seep wetlands or buffers, is the location for the new church building and parking.

**Activity (s) Applied For:**

An application may be made for more than one listed or specified activity that, together, make up one development proposal. All the listed activities that make up this application must be listed below:

Indicate the number of the relevant Government Notice	Activity No. (s) (relevant notice):	Describe each listed activity as per the wording in the listing notices:	Activity description
GNR 983: Listing Notice 1:	12	The development of (i) dams or weirs, where the dam or weir,	The proposed stormwater attenuation pond, internal

		including infrastructure and water surface area, exceeds 100 square metres; or (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs—; a) within a watercourse; b) in front of a development setback; or c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such development occurs within an urban area.	stormwater pipe excavations, and formalisation of internal access roads will occur within portions of the identified seep wetlands, or their buffer zones.
	19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from (i) a watercourse.	
	27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation	The establishment of the church building will permanently transform 4.7ha on site.
<b>GNR 985: Listing Notice 3:</b>	<b>Activity 4 c (iv);</b>	The development of a road wider than 4 metres with a reserve less than 13,5 metres, in Gauteng, where Sites are identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans;	According to the 2022 Red List Ecosystems (RLE) database, the study area is located within the remaining extent of the Critically Endangered (CR) Egoli Granite Grassland. The Gauteng Conservation Plan (C-Plan) V 4 indicates that the study area is located within an
	<b>Activity 12 c (ii):</b>	The clearance of an area of 300 square metres or more of indigenous vegetation in Gauteng Within <b>Critical Biodiversity Areas</b> or Ecological Support Areas identified in the Gauteng Conservation Plan or bioregional plans;	Important Critical Biodiversity Area (CBA), and Ecological Support Areas 1&2. Triggering features of the Important CBA include the presence of endangered species and the Jukskei River connectivity.

	<p><b>Activity 14 c (ii) (iv)</b></p>	<p>The development of (i) dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs— (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback has been adopted, within 32 metres of a watercourse, c. Gauteng iv. Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans</p>	<p>The church building, parking and services will impact on the adjacent seep wetlands and their 32m zone of regulation for the sewer package plant and stormwater system. The WUL will include these activities.</p>
<p><b><i>These activities may not commence until Environmental Authorisation has been received from the approving authority - GDEnv. The application will follow a Basic Assessment approach in terms of Section 19 of Government Notice R982 (as amended in March 2017) of NEMA</i></b></p>			

## 2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations:

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996): Chapter 2 Section 24	Department of Forestry, Fisheries and the Environment (DFFE)	8 May 1996
National Environmental Management Act No. 107 of 1998 as amended	Department of Environment (GDEnv)	27 November 1998
NEMA Environmental Impact Assessment Regulations as amended, GNR 326	Department of Forestry, Fisheries and the Environment (DFFE)	7 April 2017
Assessment for Reporting on Identified Environmental Themes	Department of Forestry, Fisheries and the Environment (DFFE)	20 March 2020
<p>National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)</p> <ul style="list-style-type: none"> <li>• GN number 1002: National List of Ecosystems that are Threatened and Need Protection dated 9 December 2011, as it relates to the NEMBA;</li> <li>• GN number R.1020: Alien and Invasive Species Regulations, 2020, in Government Gazette 43735 dated September 2020 as it relates to the NEMBA;</li> <li>• GN number 1003: Alien and Invasive Species Lists, 2020, in Government Gazette 43726 dated 18 September 2020, as it relates to the NEMBA; and</li> <li>• GN number 30568: Threatened or Protected Species (TOPS) list dated 14 December 2007, as it relates to the NEMBA.</li> </ul>	<p>Department of Forestry, Fisheries and the Environment (DFFE) Gauteng Department of Environment (GDEnv)</p>	2004
Government Gazette 45421 dated 10 May 2019 as it relates to the	Department of Environment, Forestry and Fisheries (DFFE) and Gauteng Department	2019

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
<p>Department of Forestry, Fisheries, and the Environment (DFFE's) national environmental screening report required with an application for EA as identified in regulation 16(1)(v) of EIA Regulations:</p> <ul style="list-style-type: none"> <li>o For the Terrestrial Biodiversity Theme: GN 320 Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity as published in Government Gazette 43110 dated 20 March 2020; and</li> <li>• For Animal and Plant Species Themes: GN 1150 Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental</li> <li>• Impacts on Terrestrial Plant and Animal Species as published in Government Gazette 43855 dated 30 October 2020</li> </ul>	<p>of Environment (GDEnv)</p>	
<p>Government Notice 598 Alien and Invasive Species Regulations (2014), including the Government Notice 864 Alien Invasive Species List as published in the Government Gazette 40166 of 2016, as it relates to the National Environmental Management Biodiversity Act, 2004 (Act No 10 of 2004)</p>	<p>Department of Environmental Affairs</p>	<p>2004 2017</p>
<p>National Environmental Management Waste Act GNR 921</p>	<p>Department of Environment, Forestry and Fisheries (DFFE) and Gauteng Department of Agriculture and Rural Development (GDARD)</p>	<p>29 November 2013</p>
<p>National Water Act, 1998, Act 36 of 1998</p>	<p>National Department of Water and Sanitation (DWS)</p>	<p>1998</p>
<p>Water Services Act, 1997, Act 108 of</p>		<p>1997</p>

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
1997 Government Notice 509 as published in the Government Gazette 40229 of 2016 as it relates to the National Water Act, 1998 (Act No. 36 of 1998)		2016
National Environmental Management: Air Quality Act, Act 39 of 2004 and the Atmospheric Pollution Prevention Act, Act 45 of 1965	Department of Environment, Forestry and Fisheries (DFFE)	2004
National Heritage Resources, Act, 1999, Act 25 of 1999	South Africa Heritage Resources Agency (SAHRA)	1999
Gauteng Conservation-Plan 3.3 (2011)	Provincial, Gauteng Department of Agriculture and Rural Development (GDARD)	2011
Conservation of Agricultural Resources (Act 43 of 1983) National Department of Agriculture 21 April 1983	National Department of Agriculture	21 April 1983
The Gauteng Agriculture Potential Atlas Version 4.4 Gauteng Department of Agriculture and Rural Development (GDE)	The Gauteng Agriculture Potential Atlas Version 4.4 Gauteng Department of Environment	
Sustainable Development Criteria for Built Environment Projects requiring Environmental Impact Assessments in Gauteng, 2009	Gauteng Province	2009
Gauteng Environmental Management Framework Gauteng Province 2015	Gauteng Province	2015
Gauteng Spatial Development Framework, 2030	Gauteng Province	2016
Gauteng Urban Edge 2008 / 2009	Gauteng Province	2009
Joburg 2040 – Growth and Development Strategy	Johannesburg Metropolitan Municipality	
City of Johannesburg Metropolitan Municipality Spatial Development Framework, 2040		
City of Johannesburg Nodal Review, 2020		2018

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
The Draft Greater Lanseria Master Plan (GLMP)		2021
Lanseria Regional Spatial Development Policy (LRSDF)		2017
Lanseria Integrated Open Space Plan (LIOSP) 2018		

**DESCRIPTION OF COMPLIANCE WITH THE RELEVANT LEGISLATION, POLICY OR GUIDELINE:**

Legislation, policy of guideline	Description of compliance
<b>National Environmental Management Act (Act 107 of 1998), as amended (NEMA)</b>	<p>The National Environmental Management Act (Act 107 of 1998) (NEMA), as amended, makes provision for the identification and assessment of activities that are potentially detrimental to the environment, and which require authorisation from the relevant authorities based on the findings of an environmental assessment. NEMA is a national act, which is enforced by the Department of Environmental Affairs (DEA). These powers are delegated in Gauteng, to the Department of Environment (GDEnv).</p> <p>The NEMA activities identified for this project, may not commence until Environmental Authorisation has been received from the approving authority - GDEnv. The application for the church building, parking and civil service provision, is following a Basic Assessment approach in terms of Section 19 of Government Notice R982 (as amended in March 2017) of NEMA</p>
<b>National Environmental Management Act (NEMA) Environmental Impact Assessment (EIA) Regulations 2014 (as amended)</b>	<p>In terms of Section 24(2) of NEMA, the Minister and or any MEC in concurrence with the Minister may identify activities which require authorisation as these activities may negatively affect the environment. The Act requires that in such cases the impacts must be considered, investigated and assessed prior to their implementation and reported to the organ of state charged by law with authorising, permitting, or otherwise allowing the implementation of an activity. The NEMA EIA Regulations guide the processes required for the assessment of impacts of Listed Activities. Three Listing Notices have been published under Government Gazette No 40772 on 07 April 2017; and are an amendment of the 2014 Regulations that were published under Government Gazette No. 38282 on 04 December 2014. The levels of environmental assessment required under each of these Listing Notices are as follows:</p> <ul style="list-style-type: none"> <li>▪ Listing Notice 1 (GNR 983 in Government Gazette No 40772 of 07 April 2017): This Notice identifies listed activities that require a Basic Assessment.</li> <li>▪ Listing Notice 2 (GNR 984 in Government Gazette No 40772 of 07 April 2017): This Notice identifies listed activities that require Scoping and Environmental</li> </ul>

**DESCRIPTION OF COMPLIANCE WITH THE RELEVANT LEGISLATION, POLICY OR GUIDELINE:**

Legislation, policy of guideline	Description of compliance
	<p>Impact Assessment.</p> <ul style="list-style-type: none"> <li>▪ Listing Notice 3 (GNR 985 in Government Gazette No 40772 of 07 April 2017): This Notice identifies listed activities that require Basic Assessment in specifically identified geographical areas</li> </ul> <p>An Environmental Authorisation must be obtained for any activity that is listed in any of the above notices. Such an authorisation may only be granted once the required assessment has been compiled by an independent environmental assessment practitioner and submitted to the competent authority. See the activities applied for, for the Church building which forms part of the Nietgedacht Extension 4 Township, in Section 1A of this report.</p>
<p><b>Assessment for Reporting on Identified Environmental Themes</b></p>	<p>The Department of Forestry, Fisheries and the Environment (DFFE) has published requirements in terms of site sensitivity verification, GN 320 of 20 March 2020, Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of Section 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation.</p> <p>In terms of this notice, prior to commencing with a specialist assessment, the current use of the land and the environmental sensitivity of the site under consideration identified by the national web based environmental screening tool (screening tool), where determined, must be confirmed by undertaking a site sensitivity verification. In terms of this notice, the following is applicable:</p> <ul style="list-style-type: none"> <li>• The site sensitivity verification must be undertaken by an environmental practitioner or a specialist.</li> <li>• The site sensitivity verification must be undertaken using: A desktop analysis, using satellite imagery, A preliminary on-site inspection, and any other available and relevant information.</li> </ul> <p>The outcome of the site sensitivity verification must be recorded in the form of a report that confirms or disputes the current land and the environmental sensitivity as identified by the screening tool, such as new development or infrastructure, the change in vegetation cover or status etc., Contains motivation and evidence (e.g., photographs) of either the verified or different use of the land and environmental sensitivities, and is submitted together with the relevant assessment report prepared in accordance with the requirements of the EIA Regulations.</p> <p>To address the environmental themes identified for the site, please see Appendix G for the Limnology PTY LTD Aquatic Ecosystem Delineation, and the Terrestrial Assessments conducted by Galago Environmental Biodiversity &amp; Aquatic Specialists.</p>

**DESCRIPTION OF COMPLIANCE WITH THE RELEVANT LEGISLATION, POLICY OR GUIDELINE:**

Legislation, policy of guideline	Description of compliance
	<p>Animal species sensitivity is given as High by the screening tool for the study site. After the specialist site visits, the animal species sensitivity for mammals and herpetofauna is Medium. [The nearby Jukskei River has possibly inflated the estimate of animal species sensitivity]. The Terrestrial Biodiversity is regarded as Very High by the screening tool. After the specialist site visit, though, the Terrestrial Biodiversity for mammals and herpetofauna was found to be Medium. The Aquatic Biodiversity is regarded as Very High by the screening tool, and this is the same conclusion (Very High) after the site visit.</p> <p>Limnology PTY LTD identified various seep wetlands on site, with the Jukskei River forming the south-western boundary of the site. The impact assessment of the site was calculated to Medium high. The risk assessment as per Gn4167 was calculated to Moderate. The mitigation of the foreseen impacts to the aquatic ecosystem can be managed to a certain extent using buffers on site. A calculated buffer of 32 meters for the seepage wetlands was determined.</p>
<p><b>National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)</b></p>	<p>The objectives of this act are (within the framework of NEMA) to provide for:</p> <ul style="list-style-type: none"> <li>• The management and conservation of biological diversity within the Republic of South Africa and of the components of such diversity;</li> <li>• The use of indigenous biological resources in a sustainable manner;</li> <li>• The fair and equitable sharing among stakeholders of the benefits arising from bio prospecting involving indigenous biological resources;</li> <li>• To give effect to ratify international agreements relating to biodiversity which are binding to the Republic;</li> <li>• To provide for cooperative governance in biodiversity management and conservation; and</li> <li>• To provide for a South African National Biodiversity Institute to assist in achieving the objectives of this Act.</li> </ul> <p>This act alludes to the fact that management of biodiversity must take place to ensure that the biodiversity of the surrounding areas is not negatively impacted upon, by any activity being undertaken, to ensure the fair and equitable sharing among stakeholders of the benefits arising from indigenous biological resources.</p> <p>Furthermore, a person may not carry out a restricted activity involving either:</p> <ol style="list-style-type: none"> <li>a) A specimen of a listed threatened or protected species;</li> <li>b) Specimens of an alien species; or</li> <li>c) A specimen of a listed invasive species without a permit.</li> </ol>

**DESCRIPTION OF COMPLIANCE WITH THE RELEVANT LEGISLATION, POLICY OR GUIDELINE:**

Legislation, policy of guideline	Description of compliance
	<p>Chapter 7 of the NEMBA regulations govern the ‘permit system for listed threatened or protected species. To remove or relocate any Threatened or Protected Species (TOPS) should they be identified on the site and relevant permits must be applied for.</p> <p>According to the 2022 Red List Ecosystems (RLE) database, the study area is located within the remaining extent of the Critically Endangered (CR) Egoli Granite Grassland. From a provincial biodiversity management perspective, the Gauteng Conservation Plan (C-Plan) V 4 indicates that the study area is located within an Important Critical Biodiversity Area (CBA), and Ecological Support Areas 1&amp;2. Triggering features of the Important CBA include the presence of endangered species and the Jukskei River connectivity. CBAs are areas of high biodiversity value and need to be maintained in a natural state. CBA Important Areas are areas considered important for the survival of threatened species and includes valuable ecosystems such as wetlands, untransformed vegetation, and ridges.</p> <p>Galago Environmental Biodiversity &amp; Aquatic Specialists was appointed to conduct the terrestrial biodiversity assessment as part of the Environmental Authorisation (EA) application process for the study area. See Section F and Appendix G of this report, for the detail of this specialist study. The specialist study is aligned to the requirements of this act.</p> <p>The study site has an important and sensitive topographical feature in the form of the Jukskei River and its buffer area, which form the southern border of the farm portion. The river and its buffer are statutorily protected and are flagged as having a High Conservation Sensitivity. The Jukskei River provides an important movement corridor for various animals. The study site contains natural terrestrial, arboreal and wetland habitats, and man-made rupicolous habitat. The terrestrial habitat of the study site has been transformed in parts by ground clearing, fences, exotic plants, buildings, greenhouses, tents, grass cutting, dumping site, vegetable gardens, diggings, chicken pens and water pollution.</p> <p>The species richness is low to fair, due to the small size of the study site. The existing species richness of the site is currently in a downwards cycle of decline due to environmental transformation of the study site and it surrounding environment.</p> <p>The development of the church building and associated parking will have a large and permanent footprint. No Red Data mammals and herpetofauna should be negatively affected by the development. The specialist recommendation is that the development can go ahead if the developer adheres to the mitigation measures, since the site is of “medium” sensitivity for terrestrial biodiversity and moderate for the seep wetlands on site.</p>

**DESCRIPTION OF COMPLIANCE WITH THE RELEVANT LEGISLATION, POLICY OR GUIDELINE:**

Legislation, policy of guideline	Description of compliance
<p><b>Government Notice 598 Alien and Invasive Species Regulations (2014), including the Government Notice 864 Alien Invasive Species List as published in the Government Gazette 40166 of 2016, as it relates to the National Environmental Management Biodiversity Act, 2004 (Act No 10 of 2004)</b></p>	<p>NEMBA is administered by the Department of Environmental Affairs and aims to provide for the management and conservation of South Africa’s biodiversity within the framework of the NEMA. In terms of alien and invasive species. This act in terms of alien and invasive species aims to:</p> <ul style="list-style-type: none"> <li>- Prevent the unauthorized introduction and spread of alien and invasive species to ecosystems and habitats where they do not naturally occur,</li> <li>- Manage and control alien and invasive species, to prevent or minimize harm to the environment and biodiversity; and</li> <li>- Eradicate alien species and invasive species from ecosystems and habitats where they may harm such ecosystems or habitats.</li> <li>-</li> </ul> <p>Alien species are defined, in terms of the National Environmental Management: Biodiversity Act, 2004 (Act no 10 of 2004) as:</p> <p>(a) A species that is not an indigenous species; or</p> <p>(b) An indigenous species translocated or intended to be translocated to a place outside its natural distribution range in nature, but not an indigenous species that has extended its natural distribution range by natural means of migration or dispersal without human intervention.</p> <p>Categories according to NEMBA (Alien and Invasive Species Regulations, 2017):</p> <ul style="list-style-type: none"> <li>- Category 1a: Invasive species that require compulsory control;</li> <li>- Category 1b: Invasive species that require control by means of an invasive species management programme;</li> <li>- Category 2: Commercially used plants that may be grown in demarcated areas, provided that there is a permit and that steps are taken to prevent their spread; and</li> <li>- Category 3: Ornaments used plants that may no longer be planted.</li> </ul> <p>Alien plants present on site must be controlled as a high priority, since they pose a huge risk to ecosystems further away. All Category 1 Declared Weeds and other alien invaders must be removed from the site.</p>
<p><b>The National Water Act, 1998, Act 36</b></p>	<p>The National Water Act (Act 36 of 1998) “NWA” provides a framework to protect, develop, conserve, and manage the nation’s water resources. Water use is defined broadly in terms of the NWA, and includes taking and storing water, activities which reduce stream flow, waste discharges and disposals, controlled activities (activities which impact detrimentally on a water resource), altering a watercourse, removing water found underground for certain purposes, and recreation.</p> <p>Limnology PTY LTD compiled the Aquatic Ecosystems Delineation and ecosystems condition for the site. Various seepage wetlands associated with halfway house granites were</p>

**DESCRIPTION OF COMPLIANCE WITH THE RELEVANT LEGISLATION, POLICY OR GUIDELINE:**

**Legislation, policy of guideline**

**Description of compliance**

observed on site. **The northeastern remainder of the small holding that is *not impacted* by the seep wetlands or buffers, is the location for the new church building and parking.**

The NWA provides for pollution prevention measures, with particular emphasis on water resource pollution. In accordance, the licensee shall ensure that activities impacting upon water resources and effluent releases are monitored for compliance with the applicable Regulations. Emergency incidents involving water resources are included in the Act, requiring the polluter to remediate and mitigate the impacts of such an emergency incident. In terms of Section 19 of the NWA, “an owner of land, a person in control of land or a person who occupies or uses the land on which any activity or process is or was performed or undertaken; or any other situation exists, which causes, has caused or is likely to cause pollution of a water resource must take all reasonable measures to prevent any such pollution from occurring, continuing or recurring”. A water use must be licensed (in terms of Section 21) unless it is listed in Schedule 1 as an existing lawful water use; is permissible under a general authorisation; or if a responsible authority waives the need for a licence.

Oryx solutions Africa has been appointed to compile a Water Use Authorisation Application (WUA) process for the proposed development, and the impact it may have on freshwater resources within a 500m radius of the site.



**FIGURE 26: 500 METER REGULATED AREA OF THE WETLANDS**

**DESCRIPTION OF COMPLIANCE WITH THE RELEVANT LEGISLATION, POLICY OR GUIDELINE:**

Legislation, policy of guideline	Description of compliance
<p><b>Government Notice 509 as published in the Government Gazette 40229 of 2016 as it relates to the National Water Act, 1998 (Act No. 36 of 1998)</b></p>	<p>In accordance with GN509 of 2016 as it relates to the National Water Act, 1998 (Act 36 of 1998), a regulated area of a watercourse in terms of water uses as listed in Section 21c and 21i is defined as:</p> <ul style="list-style-type: none"> <li>• the outer edge of the 1 in 100 year flood line and/or delineated riparian habitat, whichever is the greatest distance, measured from the middle of the watercourse of a river, spring, natural channel, lake or dam;</li> <li>• in the absence of a determined 1 in 100 year flood line or riparian area, the area within 100 m from the edge of a watercourse where the edge of the watercourse is the first identifiable annual bank fill flood bench; or</li> <li>• a 500m radius from the delineated boundary (extent) of any wetland or pan in terms of this regulation.</li> </ul> <p>Any development on the study site has the potential to impact the aquatic ecosystems and must be authorised in terms of Section 21 of the National Water Act (1998). The Nietgedacht X 4 Church building and parking area are located adjacent to the 32m zone of regulation of a seep wetland. Oryx solutions Africa has been appointed to compile a Water Use Authorisation Application (WUA) process for the proposed development, including stormwater attenuation on site, a sewer package plant, and discharge into the Jukskei River.</p>
<p><b>National Environmental Management Act: Protected Areas Amendment Act 21 of 2014</b></p>	<p>The National Environmental Management: Protected Areas Amendment Act 21 of 2014 aims to amend the National Environmental Management: Protected Areas Act, 2003, so as to amend or insert certain definitions; to authorise the declaration of marine protected areas; to provide for the management of marine protected areas; to provide for transitional measures; to effect certain textual alterations; and to provide for matters connected therewith. The National Environmental Management: Protected Areas Act 57 of 2003 intends to provide for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes; for the establishment of a national register of all national, provincial and local protected areas; for the management of those areas in accordance with national norms and standards; for intergovernmental co-operation and public consultation in matters concerning protected areas; and for matters in connection therewith. The study area does not occur in a Protected Area.</p> <p>Galago Environmental concluded in their report that the the Jukskei River and its 50m buffer is an important and sensitive topographical feature of the greater farm portion, which must be protected due to its High Conservation Sensitivity. Although the riparian habitat has been destroyed by previous development (S24G received), connectivity along the Jukskei River is still good.</p>

**DESCRIPTION OF COMPLIANCE WITH THE RELEVANT LEGISLATION, POLICY OR GUIDELINE:**

Legislation, policy of guideline	Description of compliance
	<p>Although the site has a High Terrestrial Biodiversity sensitivity according to the screening tool, Galago Environmental finds that the site is of “medium” sensitivity for terrestrial biodiversity and from a mammal and herpetofauna perspective. Galago Environmental have no objection against the proposed future development. From both a mammal and herpetofaunal perspective, there is no objection against the development if the integrity of the Jukskei River is not jeopardised in any way by the development. See Section F and Appendix G of this report, for the detail of this study.</p>

**DESCRIPTION OF COMPLIANCE WITH THE RELEVANT LEGISLATION, POLICY OR GUIDELINE:**

Legislation, policy of guideline	Description of compliance
<p><b>National Environment Management Waste Act, 2008 (Act No. 59 of 2008)</b></p>	<p>The NEM: Waste Act (NEMWA) was accented to on 10 March 2009 and came into effect on 01 July 2009. This Act repeals the sections in the Environment Conservation Act, Act 73 of 1989 that previously dealt with the licensing of general and hazardous waste storage facilities. The Act was established to regulate waste management for the protection of human health and the environment.</p> <p>Section 19 of the NEMWA authorises the Minister to publish a list of waste management activities which would require an environmental assessment and waste management licence. On 3 July 2009 the Minister published a schedule of waste management activities in respect of which a waste management licence is required in accordance with section 20(b) of NEMWA (GN R718, GG 32368). Activities listed under Category A of GN R 718 for which a waste management licence is required, are equivalent to those that require a Basic Assessment process as stipulated in GN R 544 of June 2010. Category B activities are equivalent to those that require a full EIA process as stipulated GN R 545 of June 2010.</p> <p>None of the activities relating to the construction and operation of the proposed church building and parking area, will require a waste management license.</p>
<p><b>National Heritage Resource Act 25 of 1999</b></p>	<p>The National Heritage Resource Act 25 of 1999 introduce an integrated and interactive system for the management of the national heritage resources; promote good government at all levels, and empower civil society to nurture and conserve their heritage resources so that they may be bequeathed to future generations and Chapter 2 section 35 subsection 3 states that any person who discovers archaeological or paleontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources and subsection 4 says that no person may, without a permit issued by the responsible heritage resources</p>

**DESCRIPTION OF COMPLIANCE WITH THE RELEVANT LEGISLATION, POLICY OR GUIDELINE:**

Legislation, policy of guideline	Description of compliance
	<p>authority—</p> <ul style="list-style-type: none"> <li>a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite;</li> <li>b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite; and section 36 subsection 3 states that no person may, without a permit issued by SAHRA or a provincial heritage resources authority—</li> <li>c) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;</li> <li>d) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or</li> <li>e) bring onto or to use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals</li> </ul> <p>In accordance with Section 38 of the NHRA, an independent heritage consultant has been appointed by the applicant to conduct a cultural heritage assessment of the site earmarked for the Church, to determine if the development activities will have an impact on any sites, features or objects of cultural heritage significance. This specialist report is presently being conducted by Dr Johnny Van Schalkwyk, and will be included in the draft report submitted to the GDEnv, as well as any registered IAP's.</p>
<p><b>The Gauteng Provincial Environmental Management Framework, 2015</b></p>	<p>The Gauteng Provincial Environmental Management Framework is a legal instrument in terms of the Environmental Management Framework Regulations. The regulations are designed to assist environmental impact management including EIA processes, spatial planning and sustainable development. The objectives of the policy are:</p> <ul style="list-style-type: none"> <li>• To ensure efficient urban development (including associated service infrastructure) in defined selected areas with lower environmental concerns and high development demand in order to help facilitate the implementation of Gauteng Growth and Management Perspective, 2014.</li> <li>• To facilitate the optimal use of current industrial, mining land and other suitable derelict land for the development of non-polluting industrial and large commercial developments.</li> <li>• To protect Critical Biodiversity Areas (CBAs) within urban and rural environments. To ensure the proper integration Ecological Support Areas (ESAs) into rural land use change and development.</li> </ul>

**DESCRIPTION OF COMPLIANCE WITH THE RELEVANT LEGISLATION, POLICY OR GUIDELINE:**

**Legislation, policy of guideline**

**Description of compliance**

- To use ESAs as defined in municipal bioregional plans in spatial planning of urban open space corridors and links within urban areas.
- To focus on the sustainability of development through the implementation of initiatives such as Energy efficiency programmes, plans and designs, Waste minimisation, reuse and recycling, Green infrastructure in urban areas, and Sustainable Urban Drainage Systems (SUDS).

According to the GDEnv Environmental Management Framework, the study and investigation areas fall within the following EMF Zones:

EMF Zone 1: (Urban development zone): The eastern portion of the investigation area is located within Zone 1. The intention with this zone is to streamline urban development activities in it and to promote development infill, densification, and concentration of urban development, to establish a more effective and efficient city region that will minimise urban sprawl into rural areas.

EMF Zone 2: (High control area inside Zone 1): Linear bands associated with drainage in the study and investigation areas are classified as being in Zone 2. This zone is sensitive to development activities. Only conservation should be allowed in this zone. Related tourism and recreation activities must be accommodated in areas surrounding this zone.

The figure below shows the location of the farm portion within the GPEMF 2021 mapping.



**DESCRIPTION OF COMPLIANCE WITH THE RELEVANT LEGISLATION, POLICY OR GUIDELINE:**

Legislation, policy of guideline	Description of compliance
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<p><b>Gauteng Plan v4</b></p>	<p><b>C-</b> The Gauteng Conservation Plan (Version 4) classified areas within the province based on its contribution to reach the conservation targets within the province. These areas are grouped as Critical Biodiversity Areas (CBAs) or Ecological Support Corridors (ESAs). The CBAs comprise ‘Irreplaceable’ areas that must be conserved and areas classified as ‘Important’ to reach the conservation targets of the Province. ESAs are areas that are not essential for meeting biodiversity representation targets/thresholds but which nevertheless play an important role in supporting the ecological functioning of CBAs and/or in delivering ecosystem services that support socio-economic development, such as water provision, flood mitigation or carbon sequestration to ensure sustainability in the long term.</p>
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According to the 2022 Red List Ecosystems (RLE) database, the study area is located within the remaining extent of the Critically Endangered (CR) Egoli Granite Grassland. From a provincial biodiversity management perspective, the Gauteng Conservation Plan (C-Plan) V 4 indicates that the farm portion is located within an Important Critical Biodiversity Area (CBA), and Ecological Support Areas 1&2. Triggering features of the Important CBA include the presence of endangered species and the Jukskei River connectivity. CBAs are areas of high biodiversity value and need to be maintained in a natural state. CBA Important Areas are areas considered important for the survival of threatened species and includes valuable ecosystems such as wetlands, untransformed vegetation, and ridges.



Limnology PTY LTD compiled the Aquatic Ecosystems Delineation and ecosystems condition for the site. Various seepage wetlands associated with halfway house granites were observed on site. **The northeastern remainder of the small holding that is not impacted by the seep wetlands or buffers, is the location for the new church building and parking.**

**DESCRIPTION OF COMPLIANCE WITH THE RELEVANT LEGISLATION, POLICY OR GUIDELINE:**

Legislation, policy of guideline	Description of compliance
<b>City of Johannesburg Metropolitan Municipality Spatial Development Framework, 2040</b>	<p>The subject property is located on the north-western periphery of the City of Johannesburg in an area falling outside the Urban Development Boundary as reflected in the City’s spatial policy framework. The applicant acknowledges that such areas are generally not the primary focus for urban expansion and are associated with heightened environmental and spatial planning sensitivities. In response, the proposed place of worship and associated parking bays are being assessed through the applicable township establishment and environmental processes, supported by the requisite ecological, wetland and water -use specialist studies. The development’s ultimate compliance and suitability will therefore be determined by the findings of these investigations, the avoidance and mitigation of identified environmental sensitivities, and the outcome of the relevant statutory approvals.</p>
<b>City of Johannesburg Nodal Review Policy, 2019/20</b>	<p>The Nodal Review Policy corresponds with the SDF and places the property beyond the Urban Development Boundary. This policy also registers the wetland and critically biodiverse area around the Jukskei River. The Nodal Review Policy refers to the SDF 2040 guidelines for development, which are noted for this development proposal. The professional team acknowledges that the City’s policy direction generally seeks to contain outward urban expansion beyond the UDB and to protect the natural environment. Accordingly, the development proposal is being assessed through the applicable township establishment and environmental processes. All required professional inputs are undertaken, including ecological and wetland specialist studies, to identify environmental sensitivities, determine development constraints, and inform an appropriate mitigation and layout response. Environmental compliance and development suitability will ultimately be determined by the findings of the specialist investigations and the outcome of the relevant statutory approvals.</p>

**3. ALTERNATIVES**

Describe the proposal and alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished. The determination of whether the site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. The no-go option must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. **Do not include the no go option into the alternative table below.**

**Note:** After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Please describe the process followed to reach (decide on) the list of alternatives below

One of the objectives of an EIA is to investigate alternatives to the proposed project. The IEM procedure stipulates that the environmental investigation needs to consider feasible alternatives for any proposed development. Therefore, possible proposals or alternatives for accomplishing the same objectives should be identified and investigated. To ensure that the proposed development enables sustainable development, *feasible* alternatives must be explored. The identification, description, evaluation, and comparison of alternatives are important for ensuring a sound environmental process. Alternatives should be considered as a *norm* within the Environmental Process.

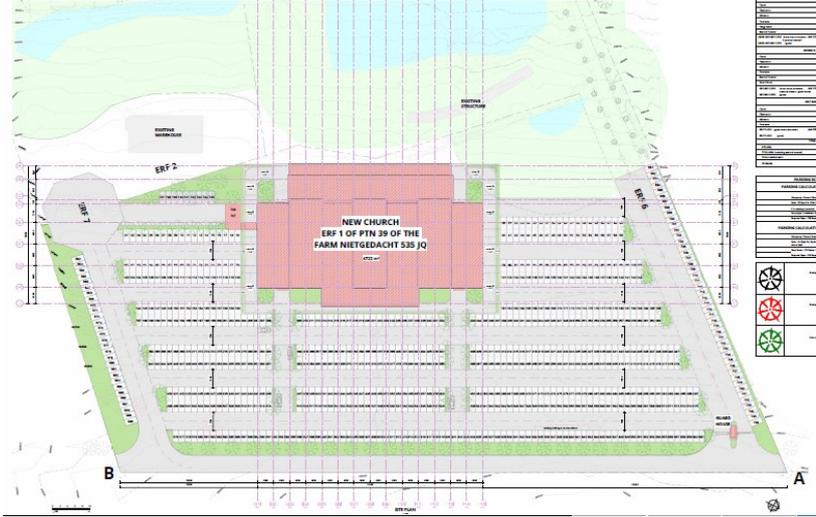
Alternatives for the church building, parking and civil service provision, [which form part of the greater Nietgedacht X 4 township to be established on site], have been developed through an iterative process led by specialist input, ecological constraint mapping, and engineering feasibility predictions.

**Provide a description of the alternatives considered.**

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	Description
1	<b>Preferred location and land use</b>	<p>The non-denominational, multicultural association organisation, Impact for Christ Ministries (IFCM), was established in 2000. It aims to guide local and global communities through the Gospel of Truth, Prophecy, and Evangelism, while providing support and assistance to its community in learning to cope with the social struggles and challenges that define many people's lives in South Africa.</p> <p>The applicant, IFCM, acquired Portion 39 of the Farm Nietgedacht 535 JQ in 2009 specifically for the purpose of establishing a place of worship and, over time, has identified the property as the intended location for its main campus. The site is therefore not a speculative landholding, but one that has long been associated with the organisation's strategic vision and planned institutional expansion.</p> <p>No reasonable alternative property / location has been identified by the applicant, as the proposed development is intrinsically linked to the organisation's long-term ownership of, and commitment to, this specific property. The applicant has accordingly not pursued alternative sites / properties for the proposed campus, as such alternatives would not align with its operational vision, landholding strategy, and long-term development objectives.</p>

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	Description
		<p>Similarly, no meaningful land use alternative is proposed by the applicant, as the property was acquired for religious institutional purposes, and remains intended for the establishment of a place of worship and associated campus facilities. The proposed land use is therefore purpose driven.</p> <p>The applicant is aware that the absence of alternative site or land use options does not negate their need to assess the environmental suitability of their preferred site. Given the presence of seep wetland characteristics on the property, the Jukskei River along the south-western boundary, and service-related infrastructure constraints, the development footprint, layout, and associated infrastructure must still be informed by the outcomes of the wetland, ecological, engineering, and planning investigations. The environmental process will determine whether the proposed development can be accommodated on a portion of the property in a lawful and sustainable manner, and if so, under what constraints, mitigation measures, and development limitations.</p>
2	<b>Preferred layout</b>	<p>The applicant's preferred layout alternative is informed primarily by the environmental constraints of Portion 39 of the Farm Nietgedacht 535 JQ and the need to avoid sensitive areas to the greatest extent possible. Based on the Limnology PTY LTD wetland delineation and associated buffer considerations, the north-eastern remainder of the property represents the only portion of the site that is not affected by seep wetland systems or their required buffers and therefore constitutes the only feasible area within which the proposed main campus church building can be accommodated.</p> <p>The preferred layout is therefore not an arbitrary product, but is the outcome of a constraints-based design response aimed at directing development away from the most environmentally sensitive portions of the property, and concentrating the built form within the least constrained area. In this respect, the layout represents the most practical and environmentally responsible development option presently available on the site.</p> <p>In addition to responding to the site's environmental limitations, the</p>



No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	Description
		
3	Alternative layout	<p>No formal alternative layout options were generated or comparatively assessed for the proposed development. This is because the key environmental sensitivities of the site, particularly the seep wetland system, associated buffers, and the physical constraints posed by the landform, were identified at an early stage and informed the development concept before a site-specific layout was prepared. As a result, the design process did not involve the preparation of multiple, materially different layout options across the property, but rather the adaptation of an already established church building concept to the specific environmental and topographical constraints of the site. The design process therefore commenced from an existing and functionally tested base concept, rather than from a blank-slate exercise involving wholly new layout generation.</p> <p>For Portion 39 of the Farm Nietgedacht 535 JQ, the focus was accordingly on positioning and refining this established scheme, so that it could respond appropriately to the site's available developable area, slope, and environmental constraints.</p> <p>In this instance, the primary drivers of layout development were the limited extent of land available outside the seep wetland system and buffers, together with the site gradient and associated engineering</p>

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	Description
		<p>considerations. The layout was therefore progressively refined to fit within the only feasible developable portion of the property, while also optimising the natural slope and maintaining the functional and design integrity of the established church concept.</p> <p>While no formally distinct alternative layouts were prepared for comparative assessment, the final layout was not arbitrarily selected. The developable envelope was significantly constrained from the outset by identified wetland sensitivities, associated buffers, and topographical limitations, with the result that the design process was one of iterative refinement within a narrow feasible area rather than broad alternative layout testing across the property.</p>
2	Alternative technologies	<p>In considering the proposed 3-storey church building and associated design college facilities, a range of alternative technologies were considered to identify development approaches that would be practical, functional, and environmentally responsible. The assessment of alternative technologies focused on the main building structure, building envelope, energy supply, water use, stormwater management, parking surfaces, access systems, and internal environmental performance.</p> <p>The first alternative considered was a conventional reinforced concrete frame with masonry infill walls. This option is widely used for multi-storey institutional developments and offers good structural stability, durability, fire resistance, and acoustic separation. These characteristics make it suitable for a mixed-use building accommodating both assembly functions and educational activities.</p> <p>A second alternative considered was a structural steel frame with lightweight walling systems. This option offers reduced construction time and greater flexibility for larger internal spans, which may be advantageous for worship spaces, assembly halls, studios, and lecture areas. However, it will require additional fire protection treatment, thermal insulation, and acoustic intervention.</p> <p>A third alternative was the use of prefabricated or precast construction</p>

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	Description
		<p>components. This technology could reduce on-site construction time, minimise waste generation, and improve quality control. Its feasibility depends on cost, design requirements, and contractor availability. A hybrid construction system, incorporating reinforced concrete for the main structural elements and lighter internal partition systems for flexibility, was also considered as a potentially suitable solution.</p> <p>Alternative walling and façade technologies were considered to improve thermal performance and occupant comfort. These included conventional brick or block masonry, lightweight insulated wall panels, and energy-efficient façade systems incorporating insulation, cavity walls, shading devices, and performance glazing.</p> <p>Given the dual function of the building as both a place of worship and an educational facility, good internal temperature regulation and acoustic performance were important considerations to the applicant. Accordingly, the use of materials and façade treatments that improve energy efficiency and sound attenuation was identified as preferable to basic standard finishes only.</p> <p>The roofing alternatives considered included a conventional reinforced concrete roof slab, a lightweight steel roof structure over larger open-span spaces, and the possible use of cool-roof or green-roof principles to reduce heat absorption and improve stormwater management. For larger internal gathering spaces such as the worship hall or auditorium, a lightweight spanning system may offer functional advantages. For other parts of the building, conventional roofing systems may be more practical and cost-effective.</p> <p><i>Energy supply alternatives</i></p> <p>The baseline option is connection to the municipal electricity network. In addition to this, alternative energy technologies considered include a grid-tied solar photovoltaic system and a solar PV system with battery backup to supplement electricity demand and provide resilience during interruptions in supply.</p>

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	Description
		<p>Given the likely daytime use of teaching spaces, studios, offices, and administration areas, solar energy generation presents a potentially suitable alternative technology. Further energy-efficiency measures considered include LED lighting, occupancy sensors, energy-efficient aircon systems, and the use of natural light where practicable.</p> <p><i>Water use and sanitation alternatives</i></p> <p>The conventional option is reliance on municipal water supply connection. Alternative technologies considered include rainwater harvesting, greywater reuse, and the installation of water-efficient fittings such as dual-flush toilets, low-flow taps, and sensor-operated fixtures. Given the anticipated occupancy of the building and the extent of ablution and operational water demand, water-saving measures are considered essential, and will be incorporated where practical and financially feasible.</p> <p><i>Stormwater management alternatives</i></p> <p>The proposed development will include a substantial roof area and associated hardstand and parking areas. Alternative stormwater technologies considered include a conventional piped stormwater system, as well as sustainable urban drainage measures such as the on-site attenuation, permeable paving, swales, infiltration measures, and controlled discharge systems.</p> <p>From an environmental perspective, the preferred approach is to incorporate stormwater management measures that reduce peak runoff, limit erosion risk, and protect surrounding water resources, particularly where wetland and drainage sensitivities occur on the site.</p> <p><i>Parking area surface alternatives</i></p> <p>In relation to the proposed parking areas, the alternatives considered include conventional asphalt surfacing, concrete paving, and permeable paving systems. Asphalt and concrete provide durable and practical surfaces for high-volume vehicle use, while permeable paving may assist with stormwater infiltration and runoff reduction where ground conditions are suitable.</p>

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	Description
		<p>The possible use of shaded parking structures or solar canopy systems was also considered as an alternative that could improve user comfort while contributing to on-site renewable energy generation.</p> <p><i>Access and vertical circulation</i> As the proposed building is three storeys in height, various access technologies were considered. These include stair-only access, staircases with ramped access at ground level, and lift-assisted universal access. For a public and educational facility of this nature, the provision of lifts and accessible routes is considered the most appropriate option to ensure inclusive access for all users.</p> <p><i>Ventilation and internal comfort</i> Alternative technologies for ventilation include natural ventilation, mechanical ventilation and air-conditioning, and mixed-mode systems that combine passive and active environmental control. The final design should respond to the needs of the worship spaces, lecture venues, studios, offices, and other internal areas. In high-occupancy spaces such as assembly halls and auditoria, mechanical systems may be required, whereas naturally ventilated or mixed-mode systems may be appropriate in other parts of the building.</p> <p>The alternative technologies considered for the proposed 3-storey church and design college indicate that a range of feasible options exist in relation to construction methods, service infrastructure, energy efficiency, water conservation, stormwater management, access, and internal environmental performance. The final technology choices should be informed by engineering design, cost, operational efficiency, environmental sensitivity, and statutory compliance requirements.</p> <p>From an environmental and functional perspective, the preferred approach would generally be one that combines a durable structural system with energy-efficient design measures, water-saving technologies, appropriate stormwater attenuation, universal access provisions, and suitable acoustic treatment to support both worship and educational uses.</p>

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	Description
		<p><i>Alternative sewer treatment systems</i></p> <p>No bulk municipal sewerage services are available in the vicinity of the Proposed Development. It is therefore proposed to construct a sewer package plant for the development, in the north-western corner of the site. The bulk of the internal sewer network for the development will drain via a gravitational sewer pipe system to this package plant. Final discharge of the treated effluent will be into the Jukskei River.</p>

In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

**NOTE: The numbering in the above table must be consistently applied throughout the application report and process**

#### 4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the total physical size (footprint) of the proposal as well as alternatives. Footprints are to include all new infrastructure (roads, services etc), impermeable surfaces and landscaped areas:

**Size of the activity:**

Proposed activity	4722 square meters
<b>Alternatives:</b>	
Alternative 1 (if any)	4722 square meters
Alternative 2 (if any)	

Ha/ m<sup>2</sup>

or, for linear activities:

**Length of the activity:**

Proposed activity	
<b>Alternatives:</b>	
Alternative 1 (if any)	
Alternative 2 (if any)	

k/km

Indicate the size of the site(s) or servitudes (within which the above footprints will occur):

**Size of the site/servitude:**

Proposed activity	
<b>Alternatives:</b>	
Alternative 1 (if any)	
Alternative 2 (if any)	

## 5. SITE ACCESS

### Proposal

Does ready access to the site exist, or is access directly from an existing road?

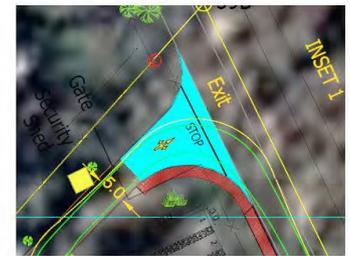
YES	NO
<b>X</b>	

If NO, what is the distance over which a new access road will be built

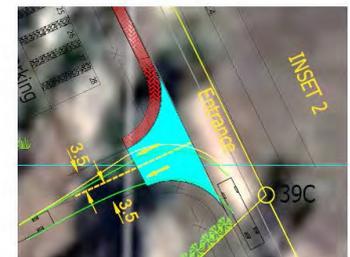
m
---

Describe the type of access road planned:

The proposed site layout provides **access** to and from Southernwood Road, a right-of-way servitude on the property's eastern boundary. Two access/exit points will be provided from Southernwood Road, to the proposed development on Portion 39 of the farm Nietgedacht 535 JQ.



INSET 1  
SCALE 1:500



INSET 2  
SCALE 1:500

Include the position of the access road on the site plan.

### Alternative 1

Does ready access to the site exist, or is access directly from an existing road?

YES	NO
<b>X</b>	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

Include the position of the access road on the site plan.

### Alternative 2

Does ready access to the site exist, or is access directly from an existing road?

N/A
-----

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

Include the position of the access road on the site plan.

**PLEASE NOTE: Points 6 to 8 of Section A must be duplicated where relevant for alternatives**

Section A 6-8 has been duplicated

0

Number of times

(only

complete when applicable)

## 6. LAYOUT OR ROUTE PLAN

A detailed site or route (for linear activities) plan(s) must be prepared for each alternative site or alternative activity. It must be attached to this document. The site or route plans must indicate the following:

- the layout plan is printed in colour and is overlaid with a sensitivity map (if applicable);
- layout plan is of acceptable paper size and scale, e.g.
  - A4 size for activities with development footprint of 10sqm to 5 hectares;
  - A3 size for activities with development footprint of > 5 hectares to 20 hectares;
  - A2 size for activities with development footprint of >20 hectares to 50 hectares);
  - A1 size for activities with development footprint of >50 hectares);
- The following should serve as a guide for scale issues on the layout plan:
  - A0 = 1: 500
  - A1 = 1: 1000
  - A2 = 1: 2000
  - A3 = 1: 4000
  - A4 = 1: 8000 (±10 000)
- shapefiles of the activity must be included in the electronic submission on the CD's;
- the property boundaries and Surveyor General numbers of all the properties within 50m of the site;
- the exact position of each element of the activity as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, sewage pipelines, septic tanks, storm water infrastructure;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites (including the relevant buffers as prescribed by the competent authority) including (but not limited thereto):
  - Rivers and wetlands;
  - the 1:100 and 1:50 year flood line;
  - ridges;
  - cultural and historical features;
  - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the position of the relevant buffer from the bank to be clearly indicated)

### FOR LOCALITY MAP (NOTE THIS IS ALSO INCLUDED IN THE APPLICATION FORM REQUIREMENTS)

- the scale of locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map;
- the locality map and all other maps must be in colour;
- locality map must show property boundaries and numbers within 100m of the site, and for poultry and/or piggery, locality map must show properties within 500m and prevailing or predominant wind direction;
- for gentle slopes the 1m contour intervals must be indicated on the map and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the map;
- areas with indigenous vegetation (even if it is degraded or infested with alien species);

- locality map must show exact position of development site or sites;
- locality map showing and identifying (if possible) public and access roads; and
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites.

See Appendix A

## 7. SITE PHOTOGRAPHS

Colour photographs from the center of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under the appropriate Appendix. It should be supplemented with additional photographs of relevant features on the site, where applicable.

See Appendix D

## 8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity to be attached in the appropriate Appendix.

See Appendix C

## SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

**Note:** Complete Section B for the proposal and alternative(s) (if necessary)

**Further:**

### Instructions for completion of Section B for linear activities

- 1) For linear activities (pipelines etc) it may be necessary to complete Section B for each section of the site that has a significantly different environment.
- 2) Indicate on a plan(s) the different environments identified
- 3) Complete Section B for each of the above areas identified
- 4) Attach to this form in a chronological order
- 5) Each copy of Section B must clearly indicate the corresponding sections of the route at the top of the next page.

Section B has been duplicated for sections of the route  times

### Instructions for completion of Section B for location/route alternatives

- 1) For each location/route alternative identified the entire Section B needs to be completed
- 2) Each alternative location/route needs to be clearly indicated at the top of the next page
- 3) Attach the above documents in a chronological order

Section B has been duplicated for location/route alternatives  times  
(complete only when appropriate)

**Instructions for completion of Section B when both location/route alternatives and linear activities are applicable for the application**

Section B is to be completed and attachments order in the following way

- All significantly different environments identified for Alternative 1 is to be completed and attached in a chronological order; then
- All significantly different environments identified for Alternative 2 is to be completed and attached chronological order, etc.

Section B - Section of Route

(complete only when appropriate for above)

Section B – Location/route Alternative No.

(complete only when appropriate for above)

### 1. PROPERTY DESCRIPTION

**Property description:**

A portion of portion 39 of the farm Nooitgedacht 534 JQ

(Farm name, portion etc.)

### 2. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in decimal degrees. The degrees should have at least six decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

**Proposed, preferred Alternative:**

**Latitude (S):**

**Longitude (E):**

25 56 50.46

27 57 48.99

**In the case of linear activities:**

**Alternative:**

- Starting point of the activity
- Middle point of the activity
- End point of the activity

**Latitude (S):**

**Longitude (E):**


For route alternatives that are longer than 500m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix

Addendum of route alternatives attached

The 21 digit Surveyor General code of each cadastral land parcel

TOJQ00000000053500000

### 3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
------	-------------	-------------	-------------	--------------	-------------	------------------

*Topographically, the site has a low relief and a very shallow gradient inclined to the southwest. The gradient is approximately 15 degrees on site.*

### 4. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site.

Ridgeline	Plateau	Side slope of hill/ridge	Valley	Plain	<b>Undulating plain/low hills</b>	<b>River front</b>
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**5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE**

Mshandukani Trading Projects conducted a **geotechnical investigation** for the farm portion in July 2011. See Appendix G for this report. The site is underlain by red medium grained quartzite of the Government Formation, west Rand Group, Witwatersrand Supergroup.

The topographical setting of the site in conjunction with historical anthropological activities, encourages stagnation of water across the farm portion. Following precipitation, highly saturated ground, especially close to the river, occurs. A perched water table resulting from the contact between various geologic zones occurs during rainy seasons in some of the areas. Groundwater occurrence in the project area is geologically and geo-structurally controlled.

This site showed no signs of previous subsidence occurrences. Furthermore, there is no evidence or record of active mining in the immediate vicinities that might cause drop in the ground water level thus triggering ground subsidence. The site is not located on dolomitic land, so it cannot be subject to doline formation. The existence of well-developed vegetation across the site, shallow slopes (approximately 0- 5 degrees), and shallow bedrock, controls the erodability of the site soils by reducing the runoff speed. The site soils are not rapidly erodible taking into account the slopes, bedrock proximity and the degree of compaction.

The site predominantly falls within NHBRC Site Soil Class R, S1 (up to 20mm downward movement of the ground under load (buildings, slabs, fills), from compression of the soils). [Class R = rock / very stiff ground (generally good founding conditions, low risk of shrink-swell problems compared to clay sites). Class S1 = a slight/low movement class (i.e., minor potential ground movement, but not “no movement”). So, R, S1 means that the site is *mostly competent (rocky/stiff), with only slight expected movement*].

It is recommended that reinforced strip footing foundation solution be used for this site. Details on foundation preparations are provided in the report. Proper compaction of the classified fill material must take place for all foundation types. Foundations should be laid at depths not less than 0.5 m. Site drainage should be such that water is channeled from site into a suitable storm water drainage system. Damp proof membrane / course should be able to inhibit the ingress of moisture. No major settlement or differential settlement cracks are foreseen provided the pressures are kept under 50 kPa at the area where bathroom (TP 02 represent soil profile of area where bathroom will be built) and toilets are going to be erected and 150kpa where the Dome will be built (TP06 and TP07 represent soil profile of where dome will be built). Some aesthetic finishes and/or construction joints should be provided for on both the internal and the external walls.

Conditions prevailing at the site suggest that no problems are foreseen for the development

of single and double storey masonry structures, provided the recommendations outlined in the geotechnical report are adhered to.

Is the site located on any of the following?

Shallow water table (less than 1.5m deep)	YES	NO
Dolomite, sinkhole or doline areas	YES	NO
Seasonally wet soils (often close to water bodies)	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO
Dispersive soils (soils that dissolve in water)	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	NO
Any other unstable soil or geological feature	YES	NO
An area sensitive to erosion	YES	NO

(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

b) are any **caves** located on the site(s)  YES  NO

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

**Latitude (S):**  ° **Longitude (E):**  °

c) are any **caves** located within a 300m radius of the site(s)  YES  NO

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

**Latitude (S):**  ° **Longitude (E):**  °

d) are any **sinkholes** located within a 300m radius of the site(s)  NO

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

**Latitude (S):**  ° **Longitude (E):**  °

If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department

## 6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)?  YES  NO

The proposed development footprint is located within a portion of the property where wetland/riparian limitations materially reduce or negate the practical agricultural capability of the site.

## 7. GROUNDCOVER

To be noted that the location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s). Indicate the types of groundcover present on the site and include the estimated percentage found on site.

Natural veld - good condition % =	Natural veld with scattered aliens % =	<b>Natural veld with heavy alien infestation /</b> % =	Veld dominated by alien species % =	Landscaped (vegetation) % =
Sport field % =	<b>Cultivated land</b> % =	Paved surface (hard landscaping) % =	<b>Building or other structure</b> % =	<b>Bare soil</b> % =

**Please note:** The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

Are there any rare or endangered flora or fauna species (including red list species) present on the site

YES	NO
-----	----

If YES, specify and explain:

--

Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site.

Undetermined
--------------

If YES, specify and explain:

--

Are there any special or sensitive habitats or other natural features present on the site?

YES	NO
-----	----

If YES, specify and explain:

--

Was a specialist consulted to assist with completing this section  
If yes complete specialist details

YES	NO
-----	----

Galago Environmental Biodiversity & Aquatic Specialists was appointed to conduct the **terrestrial biodiversity assessment** as part of the Environmental Authorisation (EA) application process for the study area.

The study site has an important and sensitive topographical feature in the form of the Jukskei River and its buffer area, which form the southern border of the farm portion. The river and its buffer are statutorily protected and are flagged as having a High Conservation Sensitivity. The Jukskei River provides an important movement corridor for various animals. The study site contains natural terrestrial, arboreal and wetland habitats, and man-made rupicolous habitat. The terrestrial habitat of the study site has been transformed in parts by ground clearing, fences, exotic plants, buildings, greenhouses, tents, grass cutting, dumping site, vegetable gardens, diggings, chicken pens and water pollution.

The species richness is low to fair, due to the small size of the study site. The existing species richness of the site is currently in a downwards cycle of decline due to environmental transformation of the study site and its surrounding environment. The development of the church building and associated parking will have a large and permanent footprint. No Red Data mammals and herpetofauna should be negatively affected by the development. The specialist recommendation is that the development can go ahead if the developer adheres to the mitigation measures, since the site is of “medium” sensitivity for terrestrial biodiversity.

Limnology PTY LTD was appointed for the **aquatic ecosystems condition** and impact ratings for the project. Various seepage wetlands associated with halfway house granites were observed on the farm portion. The wetlands are present in and around existing infrastructure constructed by the previous owners of the site. The northeastern remainder of the small holding that is not impacted by the seep wetlands or buffers, is the location for the new church building and parking.

Seep wetlands are dependent on the maintenance of their natural hydrological regime, particularly the continued inflow and movement of water through the soil profile by means of subsurface flow, seepage, and associated recharge processes. Any activity that reduces, intercepts, concentrates, or diverts these water inputs may alter the wetland’s ecological functioning. Managing lateral soil water that occurs in the soil horizons above the saprolite (or ferricrete) is important from an ecological perspective. The seep wetlands downstream must be sustained by maintaining the inflow of water into the soil (recharge) and by limiting or mitigating total sealing of the soil surface.

Name of the specialist:	Jacobus van Wyk for Galago Environmental CC
Qualification(s) of the specialist:	B.Sc. (U.F.S.) B.Sc. (Hon.) (U.F.S.), H.E.D (U.F.S.), M.Sc. (U.F.S.) Honours Foundation of Research Development bursary holder Professional Natural Scientist (Zoology) – S.A Council for Natural Scientific Professions, Registration # 400062/09
Postal address:	P.O. Box 25085, Monument Park, Pretoria

Postal code:	0105				
Telephone:	012 347 6502	27 82 410 8871			
E-mail:	jcpvanwyk@absamail.co.za vanessam@lantic.net				
Are any further specialist studies recommended by the specialist?			<table border="1"> <tr> <td>YES</td> <td>NO</td> </tr> </table>	YES	NO
YES	NO				

Signature of specialist:  Date: March 2026

If YES list the specialist reports attached below:

VERTEBRATE FAUNA (MAMMALS & HERPETOFAUNA) HABITAT ASSESSMENT OF A CHURCH ON PORTION 39 OF THE FARM NIETGEDACHT 535 JQ

Name of the specialist:	Mr. Rihann F. Geysers for Galago Environmental CC				
Qualification(s) of the specialist:	Senior Certificate (Grade 12) National Diploma Nature Conservation, Unisa (not completed) SACNASP Registration: Cert.Sci.Nat - No: 134286				
Postal address:	P.O. BOX 96023 WATERKLOOF VILLAGE PRETORIA				
Postal code:	0145				
Telephone:	Postnet Suite No. 170, Lyttleton 0140	084 293 6128			
E-mail:	avifauna@galagoenvironmental.co.za vanessam@lantic.net				
Are any further specialist studies recommended by the specialist?			<table border="1"> <tr> <td>YES</td> <td>NO</td> </tr> </table>	YES	NO
YES	NO				

Signature of specialist:  Date: March 2026

If YES, specify:

If YES, is such a report(s) attached? 

YES	NO
-----	----

If YES list the specialist reports attached below:  
THREATENED AVIFAUNAL HABITAT ASSESSMENT FOR THE DEVELOPMENT OF A CHURCH ON PORTION 39 OF THE FARM NIETGEDACHT 535JQ

Name of the specialist:	Limnology PTY LTD Mr Bertus Fourie		
Qualification(s) of the specialist:	Pr.Sci.Nat. 008394 M.Sc. Aquatic Health (UJ)		
Postal address:			
Postal code:			

Telephone:		
E-mail:	bertusfourie@gmail.com	082 921 5445
Are any further specialist studies recommended by the specialist?	YES	NO
Signature of specialist:		Date: March 2026
If YES, specify:		
If YES, is such a report(s) attached?	YES	NO

If YES list the specialist reports attached below:

AQUATIC ECOSYSTEM DELINEATION, PORTION 39 OF THE FARM, NIETGEDACHT 535, NEW BUILDINGS

**Please note;** If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated.

### 8. LAND USE CHARACTER OF SURROUNDING AREA

Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500m radius around the site

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial <sup>AN</sup>	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/polo fields	22. Airport <sup>N</sup>	23. Train station or shunting yard <sup>N</sup>	24. Railway line <sup>N</sup>	25. Major road (4 lanes or more) <sup>N</sup>
26. Sewage treatment plant <sup>A</sup>	27. Landfill or waste treatment site <sup>A</sup>	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33. Spoil heap or slimes dam <sup>A</sup>	34. Small Holdings	35. Road
Other land uses (describe):	36. Life Riverfield Lodge rehabilitation and step-down facility			

**NOTE: Each block represents an area of 250m X250m**

NORTH				
1. Vacant land	1. Vacant land	1. Vacant land	1. Vacant land	1. Vacant land
35. Road	35. Road	35. Road	35. Road	35. Road
25. Major road (4 lanes or more) <sup>N</sup>	36. Life Riverfield Lodge rehabilitation and step-down facility		19. Education facilities 20. Sport facilities	19. Education facilities 20. Sport facilities
2. River, stream, wetland	2. River, stream, wetland	2. River, stream, wetland	2. River, stream, wetland	2. River, stream, wetland
1. Vacant land 8. Low density residential	1. Vacant land 8. Low density residential	1. Vacant land 8. Low density residential	1. Vacant land 8. Low density residential	1. Vacant land 8. Low density residential

W  
E  
S  
T

E  
A  
S  
T

SOUTH

**Note:** More than one (1) Land-use may be indicated in a block



**Please note:** The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an “A” and with an “N” respectively.

Have specialist reports been attached

YES	NO
-----	----

**If yes indicate the type of reports below**

- Vertebrate fauna (Mammals & Herpetofauna) Habitat Assessment
- Threatened Avifaunal Habitat Assessment
- Aquatic ecosystem delineation, Portion 39 of the farm, Nietgedacht 535, New Buildings
- Water, Sewer, Roads and Stormwater; Electrical Engineering Reports
- Traffic Impact Assessment
- Stormwater Management Plan
- Geotechnical Investigations

**9. SOCIO-ECONOMIC CONTEXT**

**Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.**

Understanding demographics of a study area is important as these characteristics are essential for shaping land use and development proposals aligned with local needs.

Portion 39 of the Farm Nietgedacht 535 JQ is in the Lanseria / Nietgedacht rural-peripheral area of Region A, City of Johannesburg, between the N14 and the R114, and borders Southernwoods Road. The application site lies adjacent to the HeronBridge College sports fields, north of the Jukskei River, and within a broader area characterised by low-density rural and institutional land uses.

The receiving environment is described as peri-urban and semi-rural. The broader Lanseria area is still substantially rural in character, with farmland, holdings, open space and environmental constraints remaining important structuring elements of the landscape. This means the site is not located within a conventional suburban residential context with an expansive street network and dense community facilities, but rather within a fragmented edge area where agricultural holdings, lodges, schools, open land and emerging development pressures all co-exist.

The surrounding land uses are a mixed, but low-intensity local context. The area accommodates educational, hospitality, smallholding and open-space functions. The presence of these land uses is relevant because the proposed church and design college will introduce an institutional land use into an area where institutional and non-urban activities already occur, although at a larger scale than many of the immediately adjoining uses.

The property is located between low-density peri-urban landholdings and the wider northern Johannesburg / Diepsloot / Midrand functional area. The closest townships and settlements are not necessarily immediately adjacent to the site itself, but the broader Region A context includes communities facing socio-economic stress. The City's Region A profile notes that in Diepsloot, unemployment exceeds 50% and more than 70% of residents live below the poverty line. This is relevant because, although the site itself is not situated in a dense low-income settlement, the wider labour catchment from which construction workers, service workers, students, congregants and informal traders may be drawn includes communities with significant development needs and high demand for access to employment, education and community facilities. The economic character of the immediate area is transitional. The Lanseria area is influenced by major mobility routes and by broader growth pressures associated with the Lanseria node, while still retaining a rural/open-space setting in many parts.

The application site has already experienced historical transformation and low-intensity occupation/use. Parts of the site have been altered by ground clearing, fences, exotic vegetation, buildings, greenhouses, tents, grass cutting, dumping, vegetable gardens, and chicken pens. This indicates that the property forms part of a working peri-urban landscape where informal, institutional and semi-rural activities have occurred over time.

The study area is described as an area where residents and land users are likely to value a combination of access, safety, environmental quality, traffic manageability, and compatibility with surrounding land uses. Because the site is accessed from Southernwoods Road and lies between the N14 and R114, the local community condition is shaped by a

strong dependency on private vehicles and regional road access. The proposed church and design college would therefore interact with a community setting that is spatially dispersed, vehicle-oriented and sensitive to changes in traffic generation, parking demand, noise, and visual scale.

The proposed community facility is mixed. On the one hand, the presence of an existing educational institution nearby indicates that the broader area is already capable of accommodating non-residential institutional uses. On the other hand, the semi-rural location and environmental constraints mean that a large scale place of worship and educational development may still be experienced as a noticeable intensification of use, especially during peak worship gatherings, events, or student activity periods. The baseline community condition is therefore one of limited local urban intensity, with some existing institutional presence but with considerable sensitivity to the scale and operational profile of new development.

From a social opportunity perspective, the proposed development will respond to real needs in the wider area by providing a place of worship, gathering space, educational opportunities and, potentially, temporary and permanent employment. This is especially relevant in a regional context where unemployment and poverty remain significant in nearby communities. However, any benefits of the development, must be weighed against possible adverse effects on neighbouring land users and the receiving environment, particularly regarding traffic, access, noise, visual intrusion, service demand and pressure on environmentally sensitive land.

Therefore, while the proposal is capable of being supported on socio-economic grounds, such support will be conditional on the development being appropriately scaled, environmentally constrained, and infrastructure-informed.

## 10. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure 38. *(1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length; (b) the construction of a bridge or similar structure exceeding 50m in length; (c) any development or other activity which will change the character of a site- (i) exceeding 5 000 m<sup>2</sup> in extent; or (ii) involving three or more existing erven or subdivisions thereof; or (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority; (d) the re-zoning of a site exceeding 10 000 m<sup>2</sup> in extent; or (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify*

*the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.*

Are there any signs of culturally (aesthetic, social, spiritual, environmental) or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or close (within 20m) to the site?

No

If YES, explain:

If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist if one was already appointed:

In accordance with Section 38 of the NHRA, an independent heritage consultant has been appointed by the applicant to conduct a cultural heritage assessment of the site earmarked for the Church building, to determine if the development activities will have an impact on any sites, features or objects of cultural heritage significance. This specialist report is presently being conducted and will be included in the report submitted to the approving authorities, as well as any registered IAP's.

Will any building or structure older than 60 years be affected in any way?

To be determined

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

To be determined

Name of the specialist:

Dr Johnny Van Schalkwyk

Qualification(s) of the specialist:

DLitt et Phil (Anthropology), University of South Africa  
 MA (Anthropology), University of Pretoria  
 BA (Hons), Anthropology, University of Pretoria  
 Post Graduate Diploma in Museology, University of Pretoria  
 BA (Hons), Archaeology, University of Pretoria  
 BA, University of Pretoria

Postal address:

62 Coetzer Avenue, Monument Park, 0181; Tel: E-mail:

Postal code:

0181

Telephone:

076 790 6777

E-mail:

jvschalkwyk@mweb.co.za

Are any further specialist studies recommended by the specialist?

This specialist report is presently being conducted

If yes, please attached the comments from SAHRA in the appropriate Appendix

Signature of specialist:

Date:

## SECTION C: PUBLIC PARTICIPATION

### 1. LOCAL AUTHORITY PARTICIPATION

Local authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least thirty (30) calendar days before the submission of the application to the competent authority.

Was the draft report submitted to the local authority for comment?

YES	NO
-----	----

If yes, has any comments been received from the local authority?

YES	NO
-----	----

If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

If "NO" briefly explain why no comments have been received

This Draft BAR has been submitted to the relevant local authorities and public. The comment period is 25 March 2026 till the 11 May 2026. Comments received after the review period closes, will be included in the Draft BAR to be submitted to the GDEnv.

### 2. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the activity, site or property, such as servitude holders and service providers, should be informed of the application at least **thirty (30) calendar days** before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

YES	NO
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If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

If "NO" briefly explain why no comments have been received

This Draft BAR has been advertised and made publicly available. The comment period is 25 March 2026 till the 11 May 2026. Comments received after the review period closes, will be included in the Draft BAR to be submitted to the GDEnv.

### 3. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

The Environmental Assessment Practitioner must ensure that the public participation process is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees and ratepayers associations. Please note that public concerns that emerge at a later stage that

should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was flawed. The EAP must record all comments and respond to each comment of the public / interested and affected party before the application report is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

**5. APPENDICES FOR PUBLIC PARTICIPATION**

All public participation information is to be attached in the appropriate Appendix. The information in this Appendix is to be ordered as detailed below

- Appendix 1 – Proof of site notice
- Appendix 2 – Written notices issued as required in terms of the regulations
- Appendix 3 – Proof of newspaper advertisements
- Appendix 4 – Communications to and from interested and affected parties
- Appendix 5 – Minutes of any public and/or stakeholder meetings
- Appendix 6 - Comments and Responses Report
- Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report
- Appendix 8 –Comments from I&APs on amendments to the BA Report
- Appendix 9 – Copy of the register of I&Aps

**SECTION D: RESOURCE USE AND PROCESS DETAILS**

**Note:** Section D is to be completed for the proposal and alternative(s) (if necessary)

**Instructions for completion of Section D for alternatives**

- 1) For each alternative under investigation, where such alternatives will have different resource and process details (e.g. technology alternative), the entire Section D needs to be completed
- 4) Each alternative needs to be clearly indicated in the box below
- 5) Attach the above documents in a chronological order

Section D has been duplicated for alternatives 0 times  
(complete only when appropriate)

Section D Alternative No. Preferred Alternative (complete only when appropriate for above)

**1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT**

**Solid waste management**

Will the activity produce solid construction waste during the construction/initiation phase?

If yes, what estimated quantity will be produced per month?

How will the construction solid waste be disposed of (describe)?

<b>YES</b>	NO
Undetermined	

All construction solid waste generated during the construction of the proposed church building must be sorted on site into reusable, recyclable, general and hazardous waste streams. Building and demolition waste that does not contain hazardous material is treated as general waste under the Waste Classification and Management Regulations, while contaminated or hazardous materials must be handled separately in accordance with the applicable hazardous-waste requirements. All building waste must be removed by a suitable waste contractor and disposed of, recycled, recovered or treated at an appropriately authorised waste management facility. In Johannesburg, building waste must be disposed of at an appropriately licensed waste disposal facility.

Waste transfer notes, weighbridge slips, disposal receipts and/or recycling certificates will be retained on file as proof of lawful waste management. No dumping, burial or burning of waste shall be permitted on site.

Where will the construction solid waste be disposed of (describe)?

The construction solid waste will be disposed of at a registered Municipal landfill site, of the COJ.

Will the activity produce solid waste during its operational phase?	<b>YES</b>	<b>NO</b>
If yes, what estimated quantity will be produced per month?	This cannot be determined at this stage	
How will the solid waste be disposed of (describe)?		

Operational solid waste generated by the church and associated design college must be separated at source into recyclable, organic, general and, where applicable, hazardous waste streams. Waste must be stored temporarily in covered and clearly marked receptacles within a designated waste storage area, from where it shall be removed at regular intervals by the municipal waste service or an appointed private waste contractor.

Recyclable materials must be diverted to recycling where feasible, while residual general waste shall be disposed of at an appropriately authorised waste disposal facility. No on-site burning, burial or unlawful dumping of waste will be permitted. Any hazardous or special waste generated during operation shall be stored separately and disposed of at a facility authorised to accept such waste.

Given the adjacent seep wetland sensitivities on the property, the waste storage area must be located outside all no-go areas, wetland buffers and drainage pathways, and must be managed to prevent wind-blown litter, odour, vermin, and contaminated runoff.

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity?	<b>YES</b>	<b>NO</b>
--	------------	-----------

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

To be disposed of at licensed landfill site.

**Note:** If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as **hazardous** in terms of the relevant legislation?

YES	NO
-----	----

If yes, inform the competent authority and request a change to an application for scoping and EIA

Is the activity that is being applied for a solid waste handling or treatment facility?

YES	NO
-----	----

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

**Describe the measures, if any, that will be taken to ensure the optimal reuse or recycling of materials:**

In accordance with international trends, the management of all waste streams that will be generated at the development should demonstrate support for the Hierarchy of Waste Management (HWM), which aims to promote the re-use and recycling of wastes, giving effect to the concept of ‘cradle-to-cradle’ waste management. The aim of the Waste Management Plan is to minimize the amount of waste disposed of, and as such, a waste hierarchy is followed: **Prevent → Minimise → Reuse → Recycle → Recover, and only then, → Dispose.**

All materials that can be recycled must be separated from the general waste and disposed of at a recycling facility. Spoil material which could be used for landscaping purposes will be extracted and kept neatly intact in a controlled manner, to prevent wind and water erosion.

Practical measures include keeping different waste streams separate from the point of generation. Mixed waste is much harder to recover, so workers, contractors, church staff, students and service providers should be required to place waste into clearly marked containers for each material type. Johannesburg's policy specifically promotes separation at source as a key waste-diversion measure.

A second measure is to create a designated waste sorting and storage area on site. This area should be secure, weather-protected where necessary, and laid out so that reusable and recyclable materials can be temporarily stored without contamination. This helps preserve the value of recyclables such as cardboard, metals, plastics and clean rubble.

A third measure is to maximise direct reuse on site or through contractors. For construction projects, this can include reusing uncontaminated rubble, fill material, timber formwork, pallets, packaging, and surplus materials where technically suitable. During operation, furniture, equipment, paper products and packaging should be reused where possible before being discarded. This aligns with the national strategy's focus on pushing waste management higher up the hierarchy toward reuse and recycling.

A fourth measure is to ensure that recyclable waste is collected by appropriate recyclers or recycling contractors. This may include agreements with recycling companies, drop-off facilities, or municipal/private collection systems. The national strategy identifies the provision of collection systems for recyclables and sorting facilities as important enabling measures for recycling.

Organic waste should also be diverted where practical. Landscaping waste, food scraps, and other biodegradable materials can be managed through composting or sent to a facility that can process organic waste, rather than being mixed with general refuse. Composting is specifically identified in the national waste strategy as a preferred diversion measure.

To make the system effective, the IFMC should implement awareness and training measures. Contractors, staff and users should be informed of the waste-separation system, the location of bins/skips, and the prohibition on mixing waste streams, littering, burning or dumping. Johannesburg's policy and by-law framework emphasise separation at source and improved waste management practices as part of broader implementation and compliance.

**Liquid effluent (other than domestic sewage)**

Will the activity produce effluent, *other than normal sewage*, that will be disposed of in a municipal sewage system?

YES	<b>NO</b>
-----	-----------

If yes, what estimated quantity will be produced per month?

N/A	
-----	--

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?

YES	NO
-----	----

Will the activity produce any effluent that will be treated and/or disposed of on site?

Yes	<b>NO</b>
-----	-----------

If yes, what estimated quantity will be produced per month?

--	--

If yes describe the nature of the effluent and how it will be disposed.

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Note that if effluent is to be treated or disposed **on site** the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA

Will the activity produce effluent that will be treated and/or disposed of at another facility?

YES	<b>NO</b>
-----	-----------

If yes, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

Measures to ensure the optimal reuse or recycling of wastewater for the proposed church building shall include the installation of water-efficient fixtures, provision of an appropriately sized on-site treatment system, and reuse of treated effluent for suitable non-potable purposes such as toilet flushing and cleaning. The system shall incorporate dual plumbing, clear identification of non-potable water lines, secure storage, routine operation and maintenance, and monitoring to prevent odour, leakage, overflow, pollution of adjacent water resources, and contamination of the potable water supply. Wastewater reuse shall only be implemented where the quality of treated effluent is fit for the intended use and where the relevant municipal and water-sector requirements are met.

Given the distance of the site to the municipal water connection and the environmental sensitivity of the property, fit for purpose wastewater reuse may be an appropriate water-demand management measure, provided that the treatment system is robust and that no adverse impacts on the seep wetland, riparian areas, groundwater or downstream water quality occur.

**Liquid effluent (domestic sewage)** Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?

YES	NO
-----	----

If yes, what estimated quantity will be produced per month?

N/A	
-----	--

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?

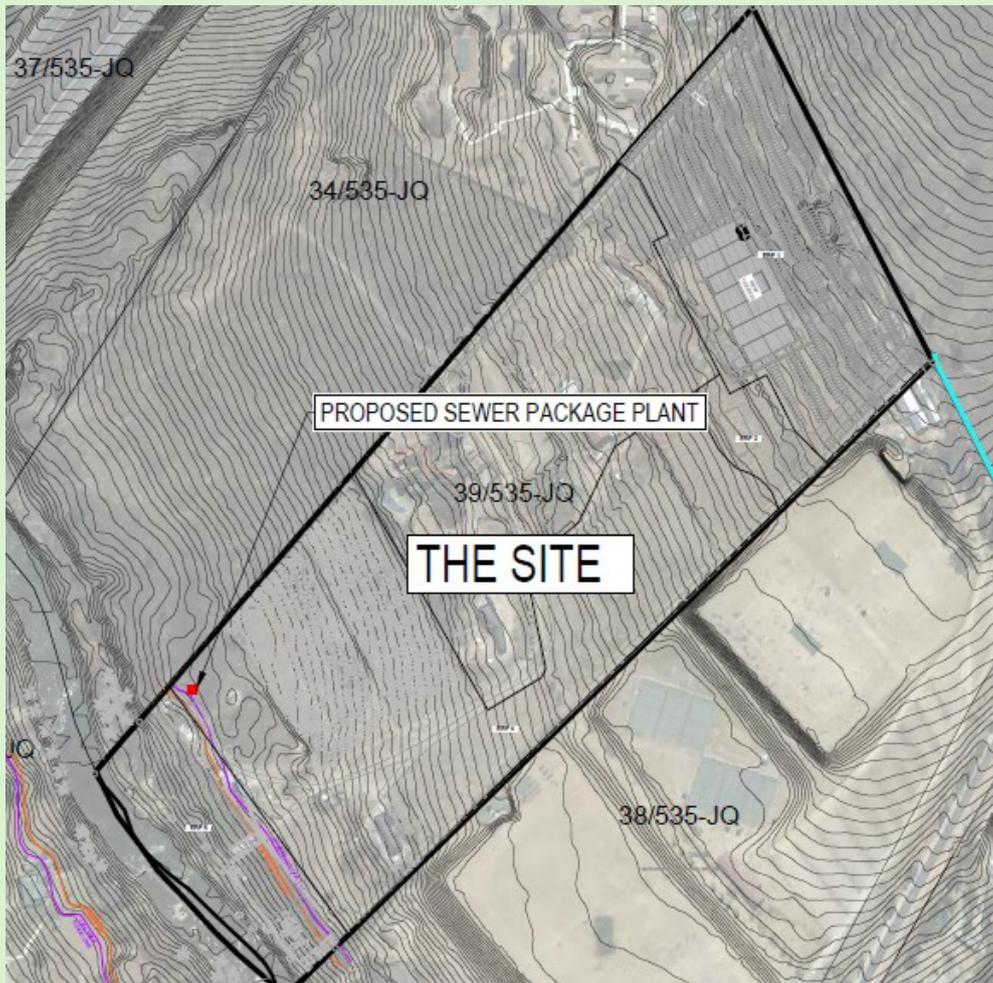
YES	NO
-----	----

Will the activity produce any effluent that will be treated and/or disposed of on site?

YES	NO
-----	----

If yes describe how it will be treated and disposed of.

No bulk municipal sewerage services are available in the vicinity of the proposed development. It is therefore proposed to construct a sewer package plant for the development, in the north-western corner of the site. The bulk of the internal sewer network for the development will drain via a gravitational sewer pipe system to this package plant.



**Emissions into the atmosphere**

Will the activity release emissions into the atmosphere?

YES	NO
Dust	

If yes, is it controlled by any legislation of any sphere of government?

YES	NO
-----	----

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

Limited dust will be generated during the construction phase of the project, due to the movement of construction vehicles and construction activities on site. The dust emissions will have a short term impact duration, and therefore a limited impact in terms of severity and extent. Appropriate dust suppression measures will be implemented to reduce the impacts as required, and will be monitored by the appointed Environmental Control Officer.

## 2. WATER USE

Indicate the source(s) of water that will be used for the activity

Municipal	Directly from water board	groundwater	river, stream, dam or lake	other	the activity will not use water
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month:

N/A

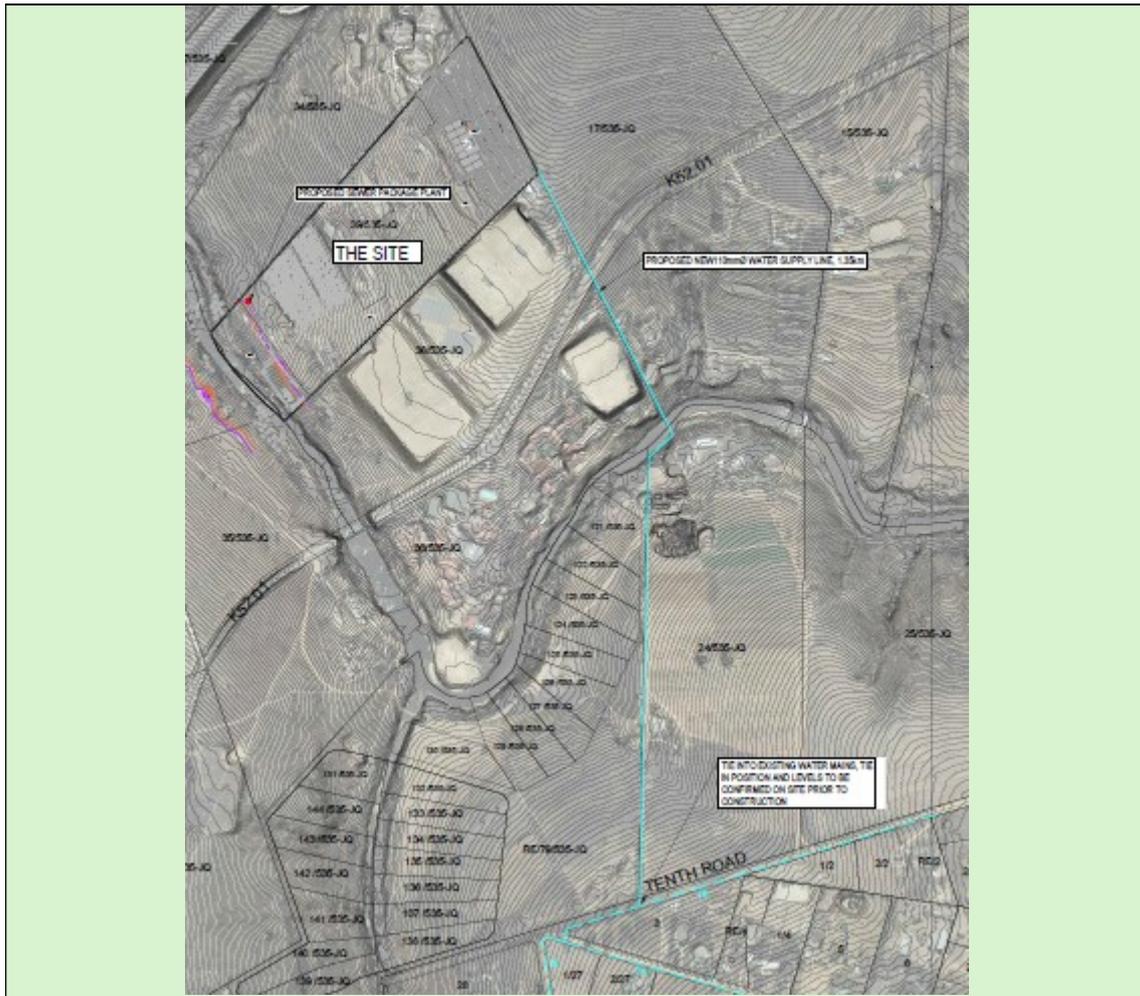
If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix

Does the activity require a water use permit from the Department of Water Affairs?

YES	NO
-----	----

If yes, list the permits required

The proposed 1.3 km pipeline connection to the municipal water supply is expected to trigger water uses in terms of Sections 21(c) and 21(i) of the National Water Act, 1998, for those portions of the alignment that cross rivers, wetlands and associated watercourses. These water uses relate respectively to the impeding or diverting of flow in a watercourse and the alteration of the bed, banks, course or characteristics of a watercourse, and must be authorised either in terms of the applicable General Authorisation issued under Section 39 or by means of a Water Use Licence, depending on the outcome of the required risk assessment and DWS determination.



If yes, have you applied for the water use permit(s)?

YES	NO
-----	----

If yes, have you received approval(s)? (attached in appropriate appendix):

### 3. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

**Eskom** is the supply authority for the site, and the property has access to its existing feeder line. Eskom confirmed that its network has sufficient capacity for this development, despite its limited capacity in this area.

If power supply is **not** available, where will power be sourced from?

### 4. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

From an energy usage point of design, the following should be considered:

- Energy efficient electrical stoves or gas stoves.
- Gas and/or solar geysers or heat pumps.
- Energy efficient lighting, i.e., LED. Controlled via time switches and motion detectors.
- Solar PV/UV systems.
- Battery/Invertor system.

Different energy saving strategies will be considered in the detail design phase of the project. The measures will include combinations of a variety of appropriate energy saving and alternative energy generation initiatives, including renewable energy, as relevant to a particular facility/development structure. Specific focus will be placed on the management of new buildings, to ensure that their design is energy efficient. Conformance with the Green Buildings Policy is important in this respect. Energy efficiency in new buildings will take account not only of the building's design, but also of life-cycle impacts associated with the upstream activities (e.g. the carbon footprint of the materials used for building construction) and the downstream activities (e.g. waste and excess soil produced by construction).

**Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:**

Where possible, the use of alternative energy supply will be promoted and used. This will include:

- Solar lighting.
- Solar water heating.
- Rainwater harvesting
- LED Lighting
- Reflective roofing
- Smart Landscaping

## 5. STORMWATER MANAGEMENT

The design of the stormwater system (by Triple 3 Group Engineering PTY LTD) is based on the implementation of measures pertaining to water quality and storm water management to ensure that acceptable environmental values and water quality objectives are met, ie. Best Management Principals [BMP's]. These principals are achieved by maintaining as accurately as possible natural water infiltration and flows, using water sensitive urban design principals, and using best practice urban storm water quality and quantity management. Furthermore these measures specifically address temporary and permanent erosion prevention, sediment control and control of other development activities that can cause pollution. The site was assessed from a combined hydrological, hydraulic, vegetation, soils and geological view point whereby relevant site constraints which will influence the erosion and sediment control plan was identified.

Accordingly, the bulk of the stormwater emanating from the hardened area of the site, will discharge into an attenuation pond which will be constructed on the north-western boundary on Erf

4. From the attenuation pond, stormwater will discharge through a  $\pm 120$  m long, 450mm diameter pipe system on the northern boundary of Erf 4, where it will discharge into a stilling basin to ensure an unconcentrated release of the stormwater discharge into the natural watercourse (Jukskei River). The attenuation pond will have the capacity to attenuate the difference between the pre-development and post-development flows for both the 1:5-year and the 1:25-year stormwater scenarios.



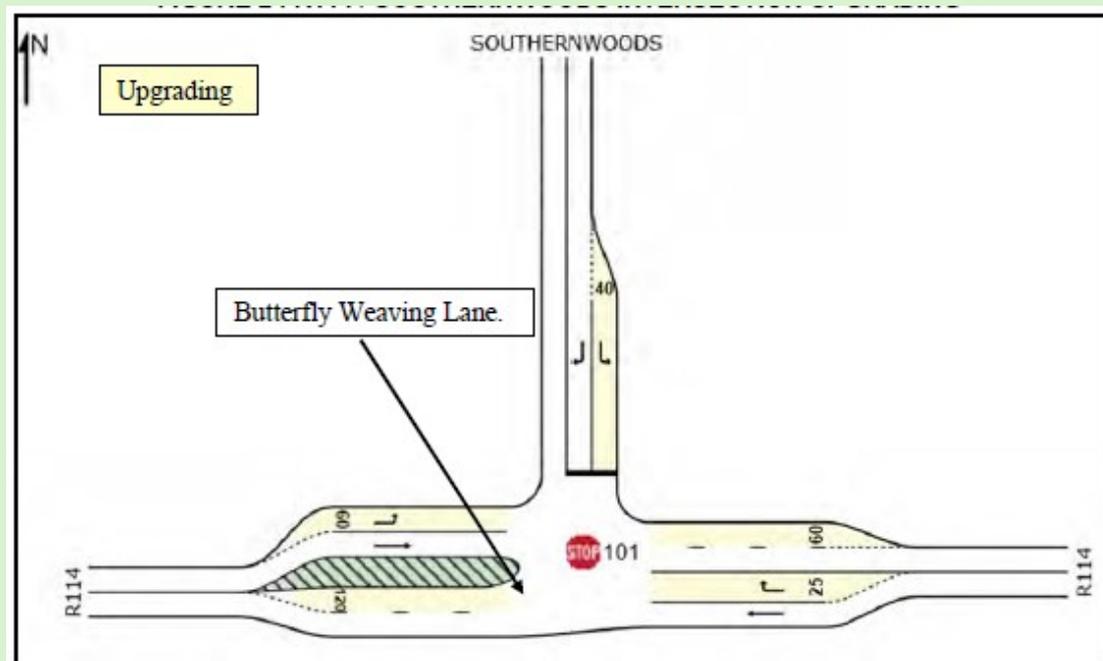
The discharge pipe downstream of the development will be deemed as an external system as it discharges into the Jukskei River. On completion the City of Johannesburg Municipality will take over the external storm water system. However, safety & security measures as well as maintenance of the attenuation pond are to be provided by the Property Owners as the pond together with the piped system upstream of it, will remain private.

The internal stormwater drainage will be managed on surface, where after an underground piped drainage system will be installed for the 1:25-year return period storm so as to ensure that the full 25-year storm event, across the hardened areas, ends up in the attenuation pond via the piped system. Allowance has been made for the 1:100-year storm to traverse the site in defined channels

(which includes the internal parking and road system) without causing any damage to buildings. Both the piped (for minor storm) and overland (for major storm) systems will discharge into the attenuation pond located on the north-western boundary of Erf 4. Currently it is anticipated that an attenuation pond structure with a sandwich wall perimeter will be used. On completion, the owners of the development will take over and maintain the internal stormwater system and associated attenuation pond.

## 6. TRAFFIC AND ROADS UPGRADE AND MANAGEMENT

Hamatino Consulting Traffic Engineers have prepared the traffic impact assessment (TIA) for the proposed church / college building, see Appendix G. The report considers traffic counts and the anticipated increase in traffic volumes, especially on Sundays. The TIA indicates that the development be supported from a traffic engineering point of view. The Southernwoods Road / R114 Intersection must be upgraded by including a butterfly weaving lane, as shown in the below.



The upgrading of the above intersection will sufficiently mitigate the existing and expected future delays at this intersection. The upgraded intersection will still yield sufficient capacity by the horizon year 2030. The development access intersection is expected to be operating at an acceptable level of service by the horizon year 2030, and sufficient shoulder and stopping sight distances do exist at the existing access intersection.

The traffic engineers confirm that no further intersection upgrading other than the above is required. The existing intersection locality is temporary, as the existing R114 road (K52) will be re-aligned in future towards the north. This existing intersection will therefore become redundant at that point in time (anticipated to be 2030 and beyond).

## SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts as well as the impacts of not implementing the activity (Section 24(4)(b)(i)).

### 1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

This Draft BAR is presently out for public review. Comments received after the review period (25 March 2026 till the 11 May 2026), will be included in the Draft BAR to be submitted to the GDEnv.

Summary of response from the practitioner to the issues raised by the interested and affected parties (including the manner in which the public comments are incorporated or why they were not included)

(A full response must be provided in the Comments and Response Report (CRR) that must be attached to this report):

### 2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

**Briefly describe the methodology utilized in the rating of significance of impacts**

The potential impacts of the proposed activity were identified through a site visit, specialist and technical studies. Issues raised by IAP's and authority comments (to be received following the review of this draft report), will be used to further refine any identified impacts.

In this Basic Assessment Report, the potential impacts are broadly identified and outlined. An assessment of the potential impacts is provided, identifying the impacts that are potentially significant and recommending management and mitigation measures to reduce the impacts. In general, it is recognised that every development has the potential to pose various risks to the environment as well as to the residents or businesses in the surrounding area. Therefore, it is important that these possible risks are taken into account during the planning phase of the development. Risks and key issues were identified and addressed through an internal process based on similar developments, environmental and technical evaluations.

Previous experience has shown the rating and ranking of impacts is often a controversial aspect because of the subjectivity involved in attaching values to impacts. Please refer to tables below, for a detailed description on the assessment methodology used. Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required.

The potential impacts of the proposed development have been identified through a desktop study, a site visit, specialist and technical studies.

### **SIGNIFICANCE DESCRIPTION METHODOLOGY**

The identification and assessment of environmental impacts is a multi-faceted process, which combines quantitative and qualitative descriptions and evaluations. It involves the application of scientific measurements and professional judgment to determine the significance of environmental impacts associated with the proposed project. The process involves consideration of *inter alia*: the purpose and need for the project; views and concerns of interested and affected parties, general public interest; and environmental legislation and guidelines.

The potential environmental impacts associated with the project have been evaluated according to the nature, extent, duration, intensity, probability, and significance rating of the impacts as explained below.

#### ***Significance of Impact***

The significance of the impact has been determined through the following criteria:

(a) **Nature of Impact:** This includes a brief description of how the proposed activity will impact on the environment. The nature of the impact is *described* as follows:

*Positive:* Impacts affect the environment in a positive manner, such that natural, cultural and/or social functions and processes are not affected or enhanced

*Negative:* Impacts affect the environment in a negative manner, such that natural, cultural and/or social functions and processes are altered, destroyed, lost, etc.

(b) **Extent:** *The* physical and spatial size of the impact, which is classified as:

- **Local:** The impacted area extends only as far as the activity, e.g. a footprint of proposed activity.
- **Site:** The impact could affect the whole, or a measurable portion of the above mentioned property.

- **Regional:** The impact could affect the area including the neighbouring properties, the transport routes and the adjoining towns.

(c) **Duration:** The lifetime of the impact; this is measured in the context of the life-time of the proposed project.

- **Short term (0-5 years):**  
The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than any proposed phases.
- **Medium term (5-15 years):**  
The impact will last up to the end of the phases, where after it will be entirely negated.

- Long term (duration of operation):

The impact will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter.

- Permanent:

The only class of impact, which is considered non transitory. Mitigation, either by man or natural process, will not occur in such a way or in such a time span that the impact can be considered transient.

#### (d) **Probability**

This describes the likelihood of the impacts actually occurring. The impact may occur for any length of time during the life cycle of the activity, and not at any given time. The classes are rated as follows:

- Improbable: The possibility of the impact occurring is very low, due to the circumstances, design or experience. Probable: There is a possibility that the impact will occur to the extent that provisions must be made to mitigate the impacts.
- Highly probable: It is most likely that the impacts will occur at some or other stage of the development. Plans must be drawn up before the undertaking of the activity.
- Definite: The impact will take place regardless of any prevention plans, and thus mitigatory actions or contingency

plans must be relied on to contain the effect.

#### (e) **Intensity**

This will be a relative evaluation within the context of all the activities and the other impacts within the framework of the project. Does it destroy the impacted environment, alter its functioning, or render it slightly altered? These are rated as:

- None: No known impacts
- Low: The impact alters the affected environment in such a way that the natural processes or functions are not affected.
- Medium: The affected environment is altered, but function and process continue, albeit in a modified way.
- High: Function or process of the affected environment is disturbed to the extent that it temporarily or permanently ceases.

#### **Determination of significance**

Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale and therefore indicates the level of mitigation required. The classes are rated as follows:

- No significance: The impact is not substantial and does not require any mitigatory action.
- Low : The impact is of minimal importance, but may require limited mitigation.
- Medium: The impact is of importance and therefore

considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.

- **High:** The impact is of great importance. Failure to mitigate, with the objective reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.

**Status**

Taking all the criteria into account, the status of the impact will either be classified as a positive or negative impact.

- **Reversibility Rating**
- **Irreversible** (the activity will lead to an impact that is permanent)
- **Partially reversible** (The impact is reversible to a degree e.g.
  - acceptable revegetation measures can be implemented but the pre-impact species composition and/or diversity may never be attained. Impacts may be partially reversible within a short (during construction), medium (during operation) or long term (following decommissioning) timeframe
- **Fully reversible** (The impact is fully reversible, within a short, medium or long-term timeframe).

**Management Actions:**

- Where negative impacts are identified, mitigatory measures will be identified to avoid or reduce negative

- impacts. Where no mitigatory measures are possible this will be stated.
- Where positive impacts are identified, augmentation measures will be identified to potentially enhance these.
- Quantifiable standards for measuring and monitoring mitigatory measures and enhancements will be set.
- This will include a programme for monitoring and reviewing the recommendations to ensure their ongoing effectiveness.

**Mitigation:**

- The objective of mitigation is to firstly avoid and minimise impacts where possible and where these cannot be completely avoided, to compensate for the negative impacts of the development on the receiving environment and to maximise re-vegetation and rehabilitation of disturbed areas. For each impact identified, appropriate mitigation measures to reduce or otherwise avoid the potentially negative impacts are suggested.
- All impacts are assessed without mitigation and with the mitigation measures as suggested.



**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
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**PRE-CONSTRUCTION PHASE**

*Pre-construction mitigation must be incorporated into the planning and design phase as a first-order avoidance and minimisation response. The church building and associated parking will be confined to the only portion of the site lying outside the seep wetland and its delineated no-go areas. The development footprint has been reduced to the minimum extent reasonably required. All infrastructure crossing seep wetlands, including stormwater, sewer and water services, must be restricted to the shortest practicable route through already disturbed areas and designed to minimise further alteration of wetland hydrology, soils, vegetation and ecological functioning.*

- The Seep wetlands located on the remainder of the farm portion, depend on shallow groundwater discharge. Excavation, grading, or compaction can alter subsurface flows which feeds this wetland. Foundations, paved surfaces, and stormwater infrastructure can block or divert natural hydrological pathways, potentially drying the wetland.
- Appropriate Engineering design foundations is required to avoid intercepting or redirecting groundwater away from the seep wetland.
- Permeable paving must be used on site to ensure groundwater recharge to feed the downstream wetland.
- Vegetation clearance should be restricted to the approved development areas allowing remaining animals the opportunity to move away from the disturbance.
- Any disturbed or eroded areas not to be developed within the site should be appropriately revegetated. Only indigenous (to the area) grass species are recommended.
- Storage of equipment, fuel and other materials should be limited to demarcated areas.
- Develop an installation sequence and layout drawings to work methodically.

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<ul style="list-style-type: none"> <li>• Keep all buildings, parking, stockpile areas, laydown areas and temporary works outside the seep wetland and outside the buffer, except where linear services have no reasonable alternative.</li> <li>• Show the wetland boundary, buffer, temporary no-go areas and service servitudes on all approved drawings.</li> <li>• Fence or demarcate the no-go line before any vegetation clearance or site establishment begins.</li> <li>• Consolidate stormwater, sewer and water crossings into the fewest number of crossings possible.</li> <li>• Use the shortest practical alignment through the already disturbed wetland areas.</li> <li>• Co-locate services within a single corridor, rather than opening multiple disturbed routes across the seep system.</li> <li>• Design linear services to minimise trench width, excavation depth and disturbance duration within wetlands.</li> <li>• Where trenching is required, specify narrow working widths, staged excavation, immediate backfilling, soil segregation and rapid reinstatement.</li> <li>• Design the development so that natural subsurface seepage and shallow surface movement are not intercepted, concentrated or cut off.</li> <li>• Avoid cut-off drains, blanket filling, retaining structures, deep excavation and subsoil drainage that would intercept the wetland’s water source.</li> <li>• Ensure service trenches do not become preferential drains or barriers to subsurface flow; include trench plugs, impermeable cut-offs or other hydrological controls where recommended by the specialist.</li> <li>• Keep upslope stormwater runoff diffuse where required, rather than concentrating discharge into the wetland.</li> <li>• Design stormwater as a controlled, low-energy system. No uncontrolled discharge from roofs, parking or roads into the seep wetland or its buffer.</li> <li>• Avoid locating pump stations, manholes, septic systems or package plants within wetlands or buffers unless no other feasible option exists.</li> <li>• Include leak detection, shut-off and emergency response provisions in the design.</li> </ul>				

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<ul style="list-style-type: none"> <li>• Avoid retaining walls or platforms that could redirect runoff or intercept seepage.</li> <li>• Balance the site earthworks as far as possible to reduce spoil areas and haul routes.</li> <li>• During planning, identify dedicated areas for laydown, batching, stockpiling, parking, ablutions and refuelling outside all wetland and buffer areas.</li> <li>• Do not leave these decisions to the contractor after appointment.</li> <li>• Strip and store topsoil separately from subsoil in all approved disturbance areas.</li> <li>• No wetland crossing works should proceed until the applicable water-use authorisation path has been confirmed.</li> <li>• Include ECO oversight and specialist sign-off points in the pre-construction programme.</li> </ul>				
<b>CONSTRUCTION PHASE</b>				
<p><b><u>Impacts associated with Geotechnical Suitability</u></b></p> <p>Nature of Impact: Soil erosion, modification or original soil conditions, compaction of soil caused by construction vehicles and workers.</p>	Negative	<ul style="list-style-type: none"> <li>• From the visual observations coupled with lab testing, the potential expansiveness of the soils on the site is Low. This is due soil texture and low percentage of clay content which result in low plasticity index and liquid limit. The possibility of structural distress resulting from cyclic drying shrinkage in dry seasons and swell after wetting is therefore minimal.</li> <li>• The compact nature and the limited thickness in the residual soils manifest into a low to medium settlement ratio. Foundation designs should be such that it takes settlement, especially differential settlement into account. This is</li> </ul>	Medium	<p><i>Low</i></p> <p>The existence of well developed vegetation, shallow slopes (approximately 0- 5 degrees), shallow bedrock controls the</p>

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		<p>due to variations in the site soils resulting from geology, geohydrology, reworked material by farming and construction activities, waste disposal pits, closed pit latrines, presence of pedogenic material etc. The site falls under R,S1 (up to 20 mm movement) soil classification.</p> <ul style="list-style-type: none"> <li>• The site soils are classified as non-dispersive soils.</li> <li>• Ground or land conditions being affected by flooding, ponding, seepage, or saturation on site may be realised cyclically following precipitation (rain). A damp proof membrane (DPM) must be installed below foundations and damp proof course (DPC) must be provided on walls to inhibit the migration of moisture up the foundation and walls.</li> <li>• Present land structure exacerbated by excavations and raised surface soil levels encourages stagnation and ponding of water on the farm portion, post precipitation events.</li> <li>• The site should be landscaped as to channel the accumulation of rain water away from the foundations of structures into a properly designed storm water drainage system.</li> <li>• Ground water in the area has a neutral pH value. Should it be decided at a</li> </ul>		<p>erodability of the site soils by reducing the runoff speed. The site soils are not rapidly erodible taking into account the slopes, bedrock proximity and the degree of compaction.</p> <p>Excavations for foundations are inspected by a competent person during construction</p>

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		<p>later stage to install any form of corrosive material underground, such component must be galvanised or properly coated with an efficient protective surface compound.</p> <ul style="list-style-type: none"> <li>The depth to bedrock for this site is shallow to moderate. Most of the area is excavatable to 1.5 m. Drill and blasting will be a suitable excavation method for most of the area where excavator reaches refusal. The excavation sidewalls appeared stable. Shoring might however be required when working in deeper than 1,5 m pits and excavations.</li> <li>Conditions prevailing at the site suggest that no problems are foreseen for the development of single and double storey masonry structures, provided the recommendations outlined in the report are adhered to.</li> </ul>		
<p><b>Wetland and freshwater impacts:</b></p> <ul style="list-style-type: none"> <li>Disturbance to adjacent seep wetlands and their buffer areas.</li> <li>Alteration of wetland hydrology through</li> </ul>	Negative	<ul style="list-style-type: none"> <li>Implement the General mitigation measures of the specialist Aquatic Assessment (Limnology PTY LTD, March 2026) prior to development, to maintain the groundwater pathways feeding the seep wetlands on the remainder of the farm portion.</li> <li>Design foundations and services, to avoid intercepting or redirecting groundwater.</li> </ul>	Medium	Low

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POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>changes to diffuse flow, seepage pathways and runoff routing.</p> <ul style="list-style-type: none"> <li>• Additional disturbance caused by stormwater, sewer and water infrastructure crossing historically disturbed seep wetlands.</li> <li>• Risk of degradation of wetland ecological functioning.</li> <li>• Reduction in the protective function of the wetland buffer due to the proximity of the church and</li> </ul>		<ul style="list-style-type: none"> <li>• Use permeable pavement and avoid deep excavation near seep zones.</li> <li>• Design the stormwater management of the site, for infiltration and filtration before water reaches the wetland.</li> <li>• Install biofiltration swales or rain gardens in the buffer zone where possible, to feed the downhill seep wetlands.</li> <li>• Use oil-water separators in parking lot drains.</li> <li>• Ensure stormwater is attenuated away from buffer zone.</li> <li>• Stormwater discharge from the attenuation pond must mimic natural discharge rates.</li> <li>• To manage erosion and sediment control during construction, install silt fences, straw bales, sediment basins, and erosion control blankets in the buffer zone area.</li> <li>• Limit clearing and grading during wet seasons.</li> <li>• Stabilize exposed soils quickly with indigenous vegetation or mulch.</li> <li>• Use green roofing systems to reduce runoff.</li> <li>• Stormwater infrastructure must be regularly maintained and inspected to ensure the adjacent seep wetland is not being choked / dried out.</li> </ul>		

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parking area.		<ul style="list-style-type: none"> <li>Design traffic flow away from the buffer edge.</li> <li>Restrict 24-hour operations near wetland edges if possible.</li> </ul>		
<p><b><u>Bulk Earthworks: Removal of vegetation causing soil erosion, Surface-water flow impacts</u></b></p> <ul style="list-style-type: none"> <li>Change from natural diffuse runoff to more concentrated runoff from roofs and hard surfaces.</li> <li>Increased runoff volume and peak flow rates due to buildings and paving.</li> <li>Interruption or redirection of natural downslope overland</li> </ul>	Negative	<p>The increased risk of erosion associated with the clearing of vegetation and the potential contamination of adjacent freshwater ecosystems with sediment laden runoff is a significant concern, especially for development activities within close proximity to freshwater ecosystems. The following measures are recommended to mitigate against the onset of erosion:</p> <ul style="list-style-type: none"> <li>The entire construction area (development site) must be fenced prior to the commencement of construction and vegetation clearing to ensure that no vehicle or other construction personnel access occurs off the site and within the adjacent 32m GDEnv buffers of the seep wetlands.</li> <li>Vegetation clearing must be restricted to the approved development footprint, done in a phased manner as the development progresses and, as much indigenous vegetation as possible is to be retained.</li> <li>Drift fences/silt curtains (as part of construction-phase stormwater control system) must be placed along the footprint perimeter as an erosion</li> </ul>	Medium	Low

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POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>flow toward the Jukskei River.</p> <ul style="list-style-type: none"> <li>Increased erosion or scour at stormwater discharge points.</li> <li>Increased risk of sediment transport downslope.</li> </ul>		<p>prevention and control measure.</p> <ul style="list-style-type: none"> <li>Construction footprint areas must remain within the authorised footprint and vegetation clearing must be limited to the development footprint area.</li> <li>Excavation for foundations and support structures may result in loose sediments within the landscape, specifically if works are undertaken during a period of rainfall (if applicable). As such, sediment traps must also be installed downstream/downgradient of the construction area. Sediment traps can be created by pegging an appropriate geotextile across the entire width of the work area at the specified support structure, held down by cobbles/boulders or by geotextile wrapped hay bales spanning the width of the work area and staked into position.</li> <li>Stockpiles must be placed on the upgradient side of trenches to prevent soil from washing down into the freshwater ecosystems during rainfall events.</li> <li>Any additional impacted areas must be rehabilitated with indigenous vegetation should construction affect areas outside of the approved footprint</li> <li>All soils compacted because of construction activities falling outside of development footprint areas should be ripped and profiled. Special attention should be paid to alien and invasive control within these areas.</li> </ul>		

<p><b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b></p>				
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		<ul style="list-style-type: none"> <li>Once earthworks are complete, disturbed areas are to be stabilised with mulch, straw or other methods approved by the ECO this purpose.</li> </ul>		
<p><b><u>Bulk Earthworks: Site Clearance and Removal of vegetation, Terrestrial biodiversity impacts</u></b></p> <ul style="list-style-type: none"> <li>Permanent loss of terrestrial habitat within the church, parking and infrastructure footprint.</li> <li>Disturbance and fragmentation of remaining habitat on the developable portion of the site.</li> </ul>	Negative	<p>Portion 39 Nietgedacht 535 JQ contains mainly three of the four natural mammal habitats, namely terrestrial, aquatic and arboreal. The riparian habitat which is important for arboreal mammals is however damaged on this site. Every effort should be made to retain the linear integrity, flow dynamics and water quality of the Jukskei River forming the southern boundary of the site. The Church is located <i>outside</i> the Jukskei River and wetland buffer areas. An indirect effect from the construction of the church would be the likely impact that the proposed development might have on the water quality of the Jukskei River due to wastewater and surface water runoff. This could have a negative impact on both mammals and herpetofauna. Measures will have to be taken to prevent the building of roads or any development near the Jukskei River and to monitor water pollution.</p> <p>The possibility of 8 mammal species with Red Data status may occur on or near the site. The Rough-haired golden mole, Robert’s marsh rat, Southern African hedgehog, Blasius’s (Peak-saddle) horseshoe bat, Short-eared trident bat, African clawless otter</p>	Medium	Low

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

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<ul style="list-style-type: none"> <li>Loss of vegetation cover and associated ecological function.</li> </ul>		<p>and Spotted necked otter are included as a precautionary measure. The possibility exists that at least some individuals of the giant bullfrog may occur on the study site from time to time.</p> <p>The following mitigation measures are proposed by the specialist:</p> <ul style="list-style-type: none"> <li>The possibility exists that the rough-haired golden mole, Robert’s marsh rat, Southern African hedgehog, Blasius’s (Peak-saddle) horseshoe bat, short-eared trident bat, African clawless otter and spotted-necked otter may occur on the study site from time to time and are included as a precautionary measure. If the giant bullfrog or any other mammal or herpetofauna species are encountered or exposed during the construction phase of new buildings or roads, they should be removed and relocated to natural areas in the vicinity. These species require consideration during site clearance (e.g., liaison with the local authorities will be required to determine associated permit requirements, rescue and relocation activities, etc).</li> <li>Indigenous riparian trees, shrub and grass species should be planted to stabilise the riverbank. Natural plant species provide food for prey items of mammals, birds and herpetofauna and provide abundant refuge for small</li> </ul>		

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		<p>mammals and herpetofauna.</p> <ul style="list-style-type: none"> <li>• It is recommended that the wetland buffers and Jukskei River buffer on site be fenced off before construction commences in order to ensure that no construction activities encroach on these sensitive areas.</li> <li>• During the construction phase there will be increased surface runoff and a decreased water quality (with increased silt load and pollution). Completing construction like roads during the winter months would mitigate the environmental impact.</li> <li>• A thorough rehabilitation plan for the Jukskei River and buffer area must be put in place once construction has stopped.</li> <li>• Alien and invasive plants must be removed.</li> <li>• The education of people/workers about the value of mammals and herpetofauna is very important. No trapping or poaching should be allowed.</li> <li>• During the construction phase there will be increased surface runoff and a decreased water quality (with increased silt load and pollution). Completing construction during the winter months will avoid this problem.</li> <li>• Any faunal species encountered during the construction phase should be allowed to move freely away from the construction areas or alternatively re-</li> </ul>		

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POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		<p>located by a suitably qualified person (especially pertinent to any snakes). • All temporary stockpile areas, litter and dumped material and rubble must be removed and disposed of at a licensed land fill facility. Proof of safe disposal must be obtained and kept on record for monitoring purposes.</p> <ul style="list-style-type: none"> <li>• All footprint areas should remain as small as possible, and the boundaries of footprint areas must be clearly defined, and it should be ensured that all activities remain within defined footprint areas;</li> <li>• Clearing of vegetation should take place in a phased manner. This will allow for faunal species within the study area to flee and avoid harm;</li> <li>• Smaller species that are not as readily able to move out of an area ahead of ground clearing activities such as scorpions and reptiles will be less mobile during rainfall events and cold days (winter). As such should any be observed in the construction site during clearing and construction activities, they are to be carefully and safely moved to an area of similar habitat outside of the disturbance footprint. Construction personnel are to be educated about these species and instructed not to kill them. Smaller scorpion species and harmless reptiles (that may be present within the study area) should be carefully relocated by a suitably nominated construction person. For larger</li> </ul>		

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		<p>venomous snakes, a suitably trained specialist, or on-site personnel, should be contacted to carry out the relocation of the species, should they be encountered and not move off on their own;</p> <ul style="list-style-type: none"> <li>• Hazardous chemicals must be stored on an impervious surface accompanied by Safety Data Sheets (SDS) and protected from the elements. These chemicals must be strictly controlled, and records kept of when it was used and by whom.</li> <li>• Limit human activity in the no-development areas to the minimum required for ongoing operation.</li> <li>• Any alien plant observed should be reported to the environmental manager and should be removed as soon as possible.</li> <li>• Regular monitoring (monthly) for damage to the environment as well as establishment of alien plant species must be conducted.</li> <li>• Care must be taken to avoid the introduction of alien plant species to the site and surrounding areas. (Particular attention must be paid to imported material).</li> <li>• Only indigenous plant species, preferably species that are indigenous to the natural vegetation of the area, should be used for landscaping in communal</li> </ul>		

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POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		<p>areas. As far as possible, plants naturally growing on the development site, but would otherwise be destroyed during clearing for development purposes, should be incorporated into landscaped areas.</p> <ul style="list-style-type: none"> <li>• Where soil disturbance is required for the laying of service infrastructure, the topsoil should be put aside and replaced after the infrastructure has been installed.</li> <li>• Edge effects arising from proposed activities, such as soil compaction, erosion and/or stormwater should be adequately managed;</li> <li>• No dumping of litter, rubble or cleared vegetation on site should be allowed. If construction material is to be discarded, it should be disposed of at an appropriate registered dump site away from the development footprint. No temporary dump sites should be allowed in areas with natural vegetation;</li> <li>• Revegetating temporary-use and lay down areas as soon as reasonably practicable after construction activities are complete. Make use of indigenous and non-invasive species in this regard.</li> </ul>		
<b><u>Invasion of alien vegetation:</u></b>	Negative	<ul style="list-style-type: none"> <li>• An Alien Invasive Plant Control Plan (AIPCP) must be compiled for the site by a</li> </ul>	Medium	Low

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<p>Clearing for the construction phase of the project, as well as for maintenance during the operation phase, will result in soil disturbance and reduced cover of indigenous vegetation, greatly increasing the chance of the establishment of alien invasive plants. However, if mitigation measures are implemented, there will be less alien vegetation, and less change of spread of alien vegetation</p>		<p>suitably qualified specialist, to be strictly implemented throughout the construction and operational phases of the proposed development to control AIP proliferation.</p> <ul style="list-style-type: none"> <li>• As part of the AIP control plan, monitoring for the establishment of AIPs within the development footprint and along access roads must be undertaken. This also includes topsoil stockpiles, which must be kept clear of AIPs.</li> <li>• Should AIPs be identified, they must be removed and disposed of as per the development’s alien and invasive species control plan, and the area must be revegetated with suitable indigenous vegetation.</li> <li>• On-going removal and disposal of alien vegetation species.</li> <li>• Alien plant regrowth must be monitored, and any such species must be removed at regular intervals throughout the construction phase;</li> <li>• Only local topsoil maybe used and if any is imported, this should be certified alien plant free; and</li> <li>• Where soils are slow to revegetate, these areas should be grubbed and planted with species suited to the region.</li> </ul>		

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<p><b><u>Top Structure construction (brick work, steel work, cement mixing, plastering, thatching, paving etc.) – Hydrocarbon spills and leaks from machinery, Construction-related impacts</u></b></p> <p>Impacted environment: Soil, ie. <u>Soil pollution</u></p> <ul style="list-style-type: none"> <li>▪ Pollution Incidents</li> <li>▪ Storage of hydrocarbons</li> </ul>	<p>Negative</p>	<ul style="list-style-type: none"> <li>• All construction materials, including fuels and oil, must be stored in demarcated areas that are contained within berms / bunds to avoid spread of any contamination into storm water systems. Washing and cleaning of equipment should also be done in berms or bunds, in order to trap any cement and prevent excessive soil erosion. These sites must be re-vegetated after construction has been completed.</li> <li>• The Contractor must ensure that all liquid fuels and oils are stored in tanks with lids, which are kept firmly shut and under lock and key at all times. The capacity of the tank must be clearly displayed and the product contained within the tank clearly identified using the emergency information system detailed in SABS 0232 part 1. Fuel storage tanks must have a capacity not exceeding 80 000 liters, and must be kept on site only for as long as fuel is needed for construction activities, on completion of which they shall be removed.</li> <li>• In the event of a hydrocarbon spill, the source of the spillage must be isolated</li> </ul>	<p>Med</p>	<p>Low</p>

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		and the spillage contained. The area must be cordoned off and secured. The Contractor must ensure that there is always a supply of absorbent material readily available to absorb/ breakdown or where possible, be designed to encapsulate minor hydrocarbon spillages. The quantities of such materials must be able to handle a minimum of 200 ℓ of hydrocarbon liquid spill.		
<p><b><u>Water quality impacts</u></b></p> <ul style="list-style-type: none"> <li>Hydrocarbon, sediment and litter pollution from parking areas and circulation roads.</li> <li>Potential contamination of surface water, wetland soils and groundwater.</li> <li>Decline in receiving water quality in the seep wetland and</li> </ul>	Negative	<ul style="list-style-type: none"> <li>Chemicals used for construction must be stored safely on site and surrounded by bunds. Chemical storage containers must be regularly inspected so that any leaks are detected early;</li> <li>No re-fuelling of construction vehicles or maintenance activities to occur outside of the site boundaries.</li> <li>All fuel storage areas, wash bays and vehicle servicing areas must be located within bunded areas with a separate dirty water handling system and oil/grease trap. General sediment traps should also be included where suitable;</li> <li>The ablution facilities meant for construction workers must be located on the north western side of the property (i.e., as far as possible from the adjacent vacant property);</li> <li>Toilets must be emptied regularly and before any extended site shutdown or</li> </ul>	Med	Low

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<p>downstream Jukskei system.</p> <ul style="list-style-type: none"> <li>• Pollution associated with operational spills, poor housekeeping, or infrastructure failure.</li> </ul>		<p>builder’s break;</p> <ul style="list-style-type: none"> <li>• Domestic waste bins/skips to be made weather proof;</li> <li>• Littering and contamination of water sources during construction must be prevented by effective on-site management;</li> <li>• Stockpiles to be located on the western side of the property;</li> <li>• All stockpiles must be protected from erosion, stored on flat areas where run-off will be minimised, and be surrounded by bunds; and</li> <li>• Spill kits to be made available at areas of possible spillages of hazardous substances;</li> <li>• Remediation of spillages must be conducted on a continual basis;</li> <li>• Drip trays will be placed underneath vehicles and machinery waiting for maintenance, repair or standing for long periods of time;</li> <li>• No waste water or hazardous substances will be disposed of into the surrounding environment;</li> <li>• Sediment depositions should be regularly removed from the swale, to prevent pollution of the runoff from contaminants contained therein.</li> <li>• Cover any wastes that are likely to wash away or contaminate storm water.</li> </ul>		

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p><b><u>Hydrological Impacts: Ground Water Quality</u></b></p> <p>Accidental spillages of diesel, oil or other hazardous substances could contaminate soil, leach into the groundwater or reach downstream water bodies through run-off.</p>	Negative	<ul style="list-style-type: none"> <li>▪ Spill kits to be made available at areas of possible spillages of hazardous substances;</li> <li>▪ Remediation of spillages must be conducted on a continual basis and within 24h of spillage;</li> <li>▪ Maintenance of vehicles may not be conducted on site;</li> <li>▪ Drip trays will be placed underneath vehicles and machinery waiting for maintenance, repair or standing for long periods of time;</li> <li>▪ No waste (hazardous or general) will be disposed of in excavated trenches;</li> <li>▪ No waste water or hazardous substances will be disposed of into the surrounding environment;</li> <li>▪ Hazardous substances will be stored in bunded areas with a capacity of 110 % of the contents volume</li> <li>▪ The stormwater management plan compiled for the development must be correctly implemented</li> </ul>	Med	Low
<p><b><u>Stormwater and drainage impacts</u></b></p> <ul style="list-style-type: none"> <li>• Increased polluted</li> </ul>	Negative	<ul style="list-style-type: none"> <li>• Stormwater from roofs, paved areas and parking bays must be captured and managed through a treatment train approach, including measures such as catchpits, silt traps, litter traps, oil/hydrocarbon separators where necessary,</li> </ul>	Medium	Low

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>stormwater runoff from parking and paved areas.</p> <ul style="list-style-type: none"> <li>• Concentration of stormwater into formal drainage systems rather than natural dispersal.</li> <li>• Potential failure or underperformance of attenuation infrastructure.</li> <li>• Potential downstream effects on seep wetlands and the Jukskei River if stormwater is not properly treated and attenuated.</li> </ul>		<p>and attenuation structures.</p> <ul style="list-style-type: none"> <li>• The design must aim to approximate pre-development runoff conditions as far as reasonably practicable by reducing peak flows, slowing runoff velocity, and minimising the concentration of natural diffuse surface flow.</li> <li>• Stormwater attenuation infrastructure must be appropriately sized for the developed catchment and must be maintained in a functional condition for the life of the development.</li> <li>• No uncontrolled stormwater discharge may be permitted into any seep wetland, wetland buffer, drainage line, or directly into the Jukskei River.</li> <li>• All stormwater discharge points must incorporate energy dissipation and erosion protection measures to prevent scour, channel formation and downstream instability.</li> <li>• As far as practicable, stormwater management infrastructure should be located outside delineated wetland areas and buffers. Where this is not feasible, the footprint and disturbance area must be kept to the minimum necessary.</li> <li>• Hard surfaces must be limited to the minimum extent required, and permeable or infiltration-supporting surfaces should be considered where</li> </ul>		

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		<p>feasible and appropriate.</p> <ul style="list-style-type: none"> <li>Disturbed areas must be stabilised and rehabilitated as soon as possible to reduce erosion and sediment transport.</li> <li>Routine inspection and maintenance of all stormwater infrastructure must be undertaken, including removal of sediment, litter and blockages, and repair of erosion damage.</li> <li>No contaminated water, cement-laden runoff, wash water, or polluted stormwater may be allowed to enter the natural drainage system, wetlands or the river.</li> </ul>		
<p><b><u>Wastewater and sewer impacts</u></b></p> <ul style="list-style-type: none"> <li>Risk of leakage, overflow or malfunction of the sewer package plant.</li> <li>Risk of inadequately treated effluent affecting wetlands</li> </ul>	Negative	<ul style="list-style-type: none"> <li>A Becon Watertech package sewer treatment plant is proposed for the site. This plant must be designed by a suitably qualified professional and must be sized to accommodate the anticipated peak hydraulic and pollutant load of the development.</li> </ul>	Medium	Low

<p><b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b></p>				
POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>and the Jukskei River.</p> <ul style="list-style-type: none"> <li>• Nutrient enrichment, pathogen loading or water quality deterioration associated with wastewater discharge.</li> <li>• Long-term operational dependence on proper package plant management and maintenance.</li> <li>• Potential pollution from sewer reticulation infrastructure, manholes and associated</li> </ul>		 <ul style="list-style-type: none"> <li>• The package plant must be located and designed to minimise risk to adjacent wetlands and the Jukskei River, and its footprint must be kept to the minimum necessary.</li> <li>• The system must include emergency storage capacity, backup power, alarms,</li> </ul>		

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
maintenance works.		<p>and automatic fail-safe mechanisms to reduce the risk of overflow, untreated discharge, or plant failure.</p> <ul style="list-style-type: none"> <li>• All sewer lines, manholes, connections and associated infrastructure must be properly designed, sealed and maintained to prevent leakage, seepage and infiltration into surrounding soils and wetlands.</li> <li>• The package plant must be operated and maintained by a competent and suitably experienced service provider.</li> <li>• A formal operation and maintenance plan must be implemented for the package plant and sewer reticulation, including inspection schedules, servicing intervals, sludge removal, emergency response procedures, and record keeping.</li> <li>• Effluent quality must be regularly monitored to ensure compliance with the applicable legal requirements, licence conditions, and discharge standards.</li> <li>• No inadequately treated effluent may be discharged into the environment. Any discharge to the Jukskei River system must comply fully with the applicable water use authorisation and discharge requirements.</li> <li>• In the event of leakage, overflow, equipment malfunction, or poor effluent quality, immediate corrective action must be taken and, where necessary,</li> </ul>		

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		<p>discharge must cease until the system is functioning correctly.</p> <ul style="list-style-type: none"> <li>• Spill response and emergency procedures must be in place to address sewage spills or plant failures, and contaminated material must be cleaned up and disposed of appropriately.</li> <li>• Access for maintenance must be controlled so that repeated disturbance within wetland areas is kept to the minimum necessary.</li> <li>• Where feasible, treated wastewater should be reused for suitable non-potable purposes such as irrigation or flushing, subject to quality standards and appropriate safeguards, in order to reduce discharge volumes.</li> <li>• No sewage, sludge, or contaminated wastewater may be disposed of on site in a manner that could pollute wetlands, groundwater, drainage lines or the Jukskei River.</li> <li>• The freshwater specialist's recommendations and all applicable National Water Act authorisation conditions must be incorporated into the final design and operation of the sewer system.</li> </ul>		
<b>Solid Waste Pollution</b>	Negative	<ul style="list-style-type: none"> <li>• Construction material must be reused or recycled where possible (e.g. mulching of cleared vegetation);</li> </ul>	Med	Low

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>The construction phase of the activity will produce construction waste in the form of discarded construction material (e.g., packaging material etc.), excess soil/spoil (from levelling) and a large volume of cleared bush vegetation (alien vegetation). The incorrect management of these wastes may result in pollution of the surrounding natural areas.</p>		<ul style="list-style-type: none"> <li>• Vegetation that is cleared from the site (and is not replanted or relocated as per the recommendations of the specialist) must be removed to a registered garden refuse site;</li> <li>• Staff must be trained to implement waste control and to identify hazardous waste;</li> <li>• Other waste to be removed to a licenced landfill site;</li> <li>• General good house-keeping must be implemented. No litter to remain on site;</li> <li>• Spills must be avoided during transportation of material;</li> <li>• Disposal certificates must be obtained for all waste disposals; and</li> <li>• Sufficient and appropriate weather- and scavenger-proof bins must be made available on-site during construction and removed/emptied on a daily basis</li> <li>• Provision of adequate numbers of litter bins throughout the development;</li> <li>• Promoting the recycling of waste, with specialist service providers appointed to remove the waste from site;</li> <li>• Records of all waste taken off site and disposed of must be kept as evidence; and</li> <li>• Burning of waste material will not be permitted.</li> </ul>		

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p><b>Impact Resulting from Material Stockpiling</b></p> <p>During the construction phase, stockpiling of construction materials on a property could result in erosion and mobilisation of the materials towards the downstream freshwater resource, resulting in sedimentation and other impacts. Furthermore, the incorrect stockpiling of material outside of the approved development area will result in further loss of indigenous vegetation and</p>	<p>Negative</p>	<ul style="list-style-type: none"> <li>• Stockpiling of construction materials on a property could result in erosion and mobilisation of the materials towards the downstream freshwater resource, resulting in sedimentation and other impacts.</li> <li>• Furthermore, the incorrect stockpiling of material outside of the approved development area will result in further loss of indigenous vegetation and negatively impact on the open space areas adjacent to the site</li> <li>• The Contractor must implement a suitable plan for stockpile management as storage outside of the property boundaries will not be permitted;</li> <li>• Where possible, any excavated material must be reused in construction and/or an investigation into a third party who could use the material beneficially must be undertaken to minimise waste to landfill. All unused/excess fill material must be removed from the site to a registered waste disposal site.</li> </ul>	<p>Low</p>	<p>Low</p>

<p><b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b></p>				
POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
negatively impact on the open space areas adjacent to the site				
<p><b><u>Increased Noise and Disturbance</u></b></p> <p>It can be expected that there will be an increase in noise levels during the site preparation and construction phase of the development. The increase in noise will be associated with the operation of construction equipment, labourers and vehicles, especially the bulldozer used to clear vegetation, build platforms, dig trenches, etc.</p>	Negative	<ul style="list-style-type: none"> <li>• Construction vehicles to be in sound working order and fitted with mufflers if necessary;</li> <li>• The Contractor must adhere to the relevant noise regulations and limit noise to within standard working hours;</li> <li>• As construction workers operate in a noisy environment, it must be ensured that their working conditions comply with the requirements of the Occupational Health and Safety Act (Act No 85 of 1993). Where necessary, ear protection gear must be worn;</li> <li>• Should the vehicles or equipment not be in good working order, the Contractor may be instructed to remove the offending vehicle or machinery;</li> <li>• Limit construction to daylight hours; and</li> <li>• Restrict unnecessary noise (e.g., portable radios, vehicle radios, whistles etc.).</li> </ul>	Med	Low

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p><b>Visual Impacts</b></p> <p>Construction activities will result in the commissioning of bulk earthwork machinery and vehicles. Unkept site due to littering and illegal dumping on site and surrounding areas. Unsightly construction waste pile may be visually intrusive.</p>	<p>Negative Subjectively perceived</p>	<ul style="list-style-type: none"> <li>• Good house-keeping to be implemented on site;</li> <li>• No visually intrusive practices are allowed on site or in the surrounding areas;</li> <li>• Any reflective construction material must be stored and placed in such a manner that it does not reflect sunlight towards the surrounding properties;</li> <li>• Construction materials to be stored neatly and waste to be collected on a regular basis;</li> <li>• Erosion, waste vegetation and dust to be mitigated as per the abovementioned mitigation measures; and</li> <li>• All disturbed areas surrounding the proposed development must be rehabilitated and all alien vegetation and weeds removed from these areas.</li> <li>▪ Light pollution should be minimised. Lighting is to be sufficient for safety and security purposes, but shall not be intrusive to neighbouring residents.</li> </ul>	<p>Medium</p>	<p>Low</p>
<p><b>Employee Safety and Security:</b></p> <p>A construction site can be a dangerous place and thus</p>	<p>Negative</p>	<ul style="list-style-type: none"> <li>• A fence must be constructed around the site prior to commencement of construction</li> <li>• Signs should be erected on all entrance gates indicating that no temporary jobs are available, thereby limiting opportunistic labourers and crime.</li> <li>• The site and crew are to be managed in strict accordance with the</li> </ul>	<p>Medium</p>	<p>Low</p>

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
could result in harm to people and property and by their nature act as a magnet to the unemployed, resulting in people gathering at the site.		<p>Occupational Health and Safety Act (Act No. 85 of 1993) and the National Building Regulations</p> <ul style="list-style-type: none"> <li>• All structures that are vulnerable to high winds must be secured (including toilets).</li> <li>• Potentially hazardous areas such as trenches are to be cordoned off and clearly marked at all times.</li> <li>• The Contractor is to ensure traffic safety at all times, and shall implement road safety precautions for this purpose when works are undertaken on or near public roads.</li> <li>• Necessary Personal Protective Equipment (PPE) and safety gear appropriate to the task being undertaken is to be provided to all site personnel (e.g. hard hats, safety boots, masks etc.).</li> <li>• All vehicles and equipment used on site must be operated by appropriately trained and / or licensed individuals in compliance with all safety measures as laid out in the Occupational Health and Safety Act (Act No. 85 of 1993) (OHSA).</li> <li>• An environmental awareness training programme for all staff members shall</li> </ul>		

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		<p>be put in place by the Contractor. Before commencing with any work, all staff members shall be appropriately briefed about the EMPr and relevant occupational health and safety issues.</p> <ul style="list-style-type: none"> <li>• All construction workers must be issued with ID badges and clearly identifiable uniforms.</li> <li>• Access to fuel and other equipment stores is to be strictly controlled.</li> <li>• Emergency procedures must be produced and communicated to all the employees on site. This will ensure that accidents are responded to appropriately and the impacts thereof are minimised. This will also ensure that potential liabilities and damage to life and the environment are avoided.</li> <li>• Adequate emergency facilities must be provided for the treatment of any emergency on the site.</li> <li>• The nearest emergency service provider must be identified during all phases of the project as well as its capacity and the magnitude of accidents it will be able to handle. Emergency contact numbers are to be displayed conspicuously at prominent locations around the construction site and the construction crew camps at all times.</li> </ul>		

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		<ul style="list-style-type: none"> <li>• The Contractor must have a basic spill control kit available at each construction crew camp and around the construction site. The spill control kits must include absorptive material that can handle all forms of hydrocarbon as well as floating blankets / pillows that can be placed on water courses.</li> <li>• The Contractor shall make available safe drinking water fit for human consumption at the site offices and all other working areas.</li> <li>• Washing and toilet facilities shall be provided on site and in the Contractors camp.</li> <li>• Adequate numbers of chemical toilets must be maintained in the Contractors camp to service the staff using this area. At least 1 toilet must be available per 10 workers using the camp. Toilet paper must be provided.</li> <li>• The chemical toilets servicing the camp must be maintained in a good state, and any spills or overflows must be attended to immediately.</li> <li>• The chemical toilets must be emptied on a regular basis.</li> <li>• No loitering around the site for people seeking temporary employment is to be allowed.</li> </ul>		

<b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b>				
POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<u>Impact on Archaeological and/or Paleontological Resources</u>	Negative	<ul style="list-style-type: none"> <li>A Heritage Assessment is being conducted by Dr J Van Schalkwyk Heritage Consultant. No sites or artefacts of heritage importance occur on site.</li> <li>Although highly unlikely, it is possible that the discovery or exposure of archaeological artefacts may occur during the construction phase. Should this be the case, it is also possible that these heritage resources will be damaged or lost during the construction phase.</li> </ul>	Low	
<u>Impacts on Air Quality: Dust Creation</u>  The construction activities will increase the potential for dust especially from the clearing of vegetation. During the construction phase of the activity, materials will be moved to and from the	Negative	<ul style="list-style-type: none"> <li>Ensure that exposed areas are dampened with non-potable water following vegetation clearance;</li> <li>Construction work to be halted during periods of strong wind;</li> <li>The loading of materials must be done with the lowest drop height and those vehicles carrying dusty materials must be securely and properly covered before they leave the site;</li> <li>Any complaints or claims emanating from the lack of dust control must be attended to immediately by the Contractor; and</li> <li>Maintain vegetation as a windbreak in the area facing the prevailing wind direction until the completion of construction.</li> </ul>	Medium	Low

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>project site and this could result in dust pollution not only from the materials, but also from the construction vehicles which will be operating on site. The effects of dust will be exacerbated during high wind conditions.</p>				
<p><b><u>Impacts on Health, Safety and Fire Risk</u></b></p> <p>The use of construction machinery during the construction phase poses a potential risk to the health and safety of people working at the construction site. The movement of construction</p>	<p>Negative</p>	<ul style="list-style-type: none"> <li>• All relevant Health and Safety legislation as required in South Africa should be strictly adhered to, including but not limited to the Occupational Health and Safety Act, 1993 (No. 85 of 1993);</li> <li>• Smoking should be restricted to a designated smoking area;</li> <li>• Ensure availability of fire extinguishers; and</li> <li>• All employees must be aware of emergency/ contingency plans to ensure an understanding of the hazards and procedures required during an emergency situation</li> </ul>	<p>Medium</p>	<p>Low</p>

<p><b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b></p>				
POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
vehicles also increases the risk of accidents along provincial roads. The risk of accidents, fires and potential injuries must be mitigated effectively.				
<p><b><u>Construction Traffic and Road Impacts</u></b></p> <p>During construction, there will be an increase in the number of vehicles using the nearby roads, including heavy construction vehicles. This may result in damage to the roads. The construction vehicles could also impede other road users at certain</p>	Negative	<ul style="list-style-type: none"> <li>• All drivers to have the necessary driving permits to operate the plant/vehicles;</li> <li>• All traffic laws must be obeyed at all times;</li> <li>• Avoid transportation of construction material during peak hours;</li> <li>• Any abnormal loads must be approved with the traffic authorities and must comply with any conditions imposed by the authorities;</li> <li>• Avoid transportation of construction material during peak hours;</li> <li>• The Contractor must employ flag staff in order to prevent on-site accidents;</li> <li>• Speed must be limited to 30 km/h on site;</li> <li>• Suitable temporary signage be erected, warning motorists of the presence of heavy construction vehicles;</li> <li>• Overloading of vehicles must not occur; and</li> </ul>	Medium	Low

<b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b>				
POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
sections of the roads to the site if not adequately managed and controlled.		<ul style="list-style-type: none"> <li>Any damage to existing access roads as a result of the construction activities must be immediately repaired</li> <li>The movement of construction vehicles during the construction period is to be carried out in such a manner so as not to interfere unnecessarily or improperly with the public convenience. Traffic signage acknowledging the presence of a construction site must be provided.</li> <li>Proper and adequate lanes to allow for ingress/egress to be provided.</li> <li>Access to the construction area must be predetermined and used during constructions.</li> <li>The working area and all exposed trenches must be fenced off with barrier netting, danger tape &amp; droppers.</li> <li>Excavated earth material should not be dumped/ stockpiled in the road in any way that will obstruct traffic flow.</li> </ul>		
<b>Infrastructure and Services</b>  Additional pressure placed on	Negative	<ul style="list-style-type: none"> <li>Integrity of existing services to be ensured.</li> <li>Adherence to Traffic Impact Study requirements.</li> <li>It must be ensured that existing services infrastructure within the road</li> </ul>	Low	Low

<p><b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b></p>				
POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
existing infrastructure to accommodate the new township		<p>reserve are not damaged.</p> <ul style="list-style-type: none"> <li>Any damages to existing services infrastructure must be repaired immediately.</li> </ul>		
<p><b><u>Employment Creation and Local Business Development</u></b></p> <p>The construction phase of the proposed development will create temporary jobs for locals within the area. Where possible, materials must be sourced from local businesses and this will result in a boost of the local economy of the immediate vicinity and surrounding areas.</p>	Positive	<ul style="list-style-type: none"> <li>The project will create a number of job opportunities for the local population. Any available jobs will provide an immediate positive impact on the employment and income situation within the study area. This phase of the development will provide the most benefits in terms of sustained employment for the duration of the project and increase in income. Initially, the site preparation phase will employ large construction vehicles and equipment for landscaping, grading and levelling, the cutting of access roads for these vehicles and laborers to access the site. This means that many skilled workers will be necessary to operate front-end loaders, excavators, bulldozers and backhoes and other vehicles. In addition to this, unskilled labourers will still be necessary for other tasks. This phase of the development will therefore have a short-term major positive impact on the employment and income at the local level.</li> <li>Employ local people wherever possible;</li> </ul>		

<b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b>				
POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		<ul style="list-style-type: none"> <li>• Purchase materials from local businesses wherever possible; and</li> <li>• Equal opportunities must be given to women where possible.</li> </ul>		
OPERATIONAL PHASE				
<u>Impact on the adjacent seep wetland by operating the development within the buffer zone, and surface water pollution</u>	Negative	<p>The operational impacts of the proposed church development on the adjacent seep wetlands and buffer zones are expected to include long-term edge effects associated with the proximity of buildings and parking to the wetland buffer, increased polluted stormwater runoff from impervious surfaces, altered hydrological functioning due to attenuation and service infrastructure within historically disturbed seep wetlands, and ongoing water-quality risks associated with the operation and maintenance of the downstream sewer package plant and associated discharge to the Jukskei River. These impacts are potentially significant because the site forms part of a connected freshwater system in which the seep wetlands and Jukskei River perform important buffering, filtering and ecological functions, and because the proposed attenuation and wastewater infrastructure are not wholly external to the wetland environment.</p> <ul style="list-style-type: none"> <li>• The seep wetland and its delineated buffer must remain clearly demarcated and treated as a permanent no-go area for all church and design college</li> </ul>	Medium	Low

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		<p>activities, storage, temporary parking, informal footpaths, dumping, landscaping encroachment, and maintenance laydown. Buffer zones are intended to reduce impacts from adjoining land uses and to protect aquatic processes, so their function must not be eroded during operation.</p> <ul style="list-style-type: none"> <li>• The edge of the church and parking area adjacent to the wetland buffer should be designed and managed as a low-disturbance interface.               <ul style="list-style-type: none"> <li>- no overflow parking into the buffer;</li> <li>- no temporary event infrastructure in the buffer;</li> <li>- no irrigation overspray into the wetland;</li> <li>- no grass cutting or landscaping that extends into the seep system;</li> <li>- no storage of bins, materials, fuel, cleaning chemicals, or maintenance items near the wetland edge.</li> </ul> </li> <li>• Runoff from roofs, roads and parking bays should first pass through a treatment train before reaching the attenuation system. In practice, this means features such as litter traps; silt traps/catchpits; oil/hydrocarbon separators where needed; vegetated swales or biofiltration systems outside the wetland where feasible; forebays for sediment settlement. This is important because polluted runoff and stormwater are recognised</li> </ul>		

<p><b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b></p>				
POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		<p>pressures on wetlands and rivers.</p> <ul style="list-style-type: none"> <li>Do not rely on the historically disturbed seep areas to treat untreated runoff.</li> <li>The attenuation facility must be lined or otherwise engineered where necessary, and must discharge in a controlled, attenuated and energy-dissipated manner so that concentrated flows do not erode the seep or the Jukskei receiving environment.</li> <li>Mimic natural hydrology as far as practicable. The operational stormwater system must avoid converting diffuse seepage-related flow into concentrated, erosive discharges. Peak runoff from the parking and building area should be attenuated to approximate pre-development flow behaviour as far as reasonably possible, and discharge points must include energy dissipation and erosion protection. This is particularly important for seep wetlands, which are sensitive to changes in flow pathways and intensity.</li> <li>Because wetlands are highly vulnerable to wastewater pollution, the sewer package plant should be operated as a critical-risk installation. Practical controls should include:               <ul style="list-style-type: none"> <li>a treatment system sized for peak church/event loads, not just average demand;</li> </ul> </li> </ul>		

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		<ul style="list-style-type: none"> <li>- standby capacity and emergency storage for upset conditions;</li> <li>- high-level alarms and telemetry;</li> <li>- backup power;</li> <li>- routine servicing by a competent operator;</li> <li>- flow metering and record-keeping;</li> <li>- regular effluent quality monitoring.</li> </ul> <p>Poorly treated wastewater and leaking sewage are recognised drivers of wetland and river degradation.</p> <ul style="list-style-type: none"> <li>• All sewer lines, manholes, pump components and the package plant must be designed to minimise leakage and overflow risk. Practical measures include sealed joints; bunding or containment around critical treatment components; emergency shut-off arrangements; routine leak inspections; immediate repair obligations; emergency response procedures for spills and overflows. Given the wetland location, even a short-duration failure could have direct downstream effects on the Jukskei.</li> <li>• The package plant discharge must be monitored against the applicable discharge standard and authorisation conditions. Wastewater pollution is a major pressure on aquatic ecosystems, so monitoring is not optional good</li> </ul>		

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		<p>practice, it is central to impact prevention.</p> <ul style="list-style-type: none"> <li>All disturbed wetland areas around the attenuation pond, sewer plant, outfalls and service corridors should be stabilised and rehabilitated with suitable indigenous wetland vegetation where possible. The aim is to reduce erosion; improve sediment trapping; discourage access and trampling; restore some ecological function around the engineered elements. Historically disturbed wetland areas should still be managed to prevent further decline rather than treated as expendable.</li> <li>Because operational church sites can attract large gatherings, the wetland-buffer edge should be <i>physically protected</i> where necessary using low-visibility <i>barriers, bollards, planting, or other access controls</i>. Designated walkways and circulation routes should keep congregants, staff and maintenance workers out of the seep and buffer. This helps prevent progressive degradation from informal access over time.</li> <li>Because the attenuation, sewer and service infrastructure are in/through seep wetland areas on the farm portion, and ultimately discharge to the Jukskei, the church will have rehabilitation obligations after any failure or repair works as per the Section 21(c) and 21(i) activities applicable</li> </ul>		

<b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b>				
POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		authorisation path (WULA).		
<b><u>Impact on surface Water flow Patterns</u></b>	Negative	<p>The key operational impact on surface-water flow patterns will be the transformation of diffuse natural runoff across the sloping site into concentrated, faster and potentially more erosive stormwater flows generated by roofs and parking areas, with downstream implications for the seep wetlands and the Jukskei River.</p> <ul style="list-style-type: none"> <li>Keep the paved footprint to the minimum necessary, avoid over-design of parking and hardstand areas, and use permeable paving or infiltration-friendly surfacing in suitable low-risk areas where geotechnical and water-quality conditions allow. This helps reduce runoff volume and slow the rate at which water leaves the developed area. SuDS guidance specifically promotes long-term storage and infiltration where feasible, with attenuation used where full infiltration is not practical.</li> <li>Roofs, parking bays and paved areas should drain first into local source controls such as gutters to filter drains, vegetated swales, biofilters, rather than sending untreated runoff directly downslope. Managing runoff at source reduces the speed and concentration of flow before it enters the main</li> </ul>	Medium	Low

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		<p>stormwater system.</p> <ul style="list-style-type: none"> <li>• Provide attenuation sized for the developed catchment so that post-development peak flows are reduced before water is released downslope. Extended attenuation storage is specifically recommended in South African SuDS guidance to protect receiving watercourses where long-term infiltration is not feasible on site. This is especially important on the sloping site draining toward the Jukskei.</li> <li>• No stormwater outlet should release high-velocity flow directly toward the seep wetlands or river. Outlets should include energy dissipation devices, and erosion protection so that water re-enters the landscape as gently as possible.</li> <li>• Operational impacts often arise not from the original design but from blocked inlets, silted traps, damaged outlets and failed attenuation controls. A maintenance plan should therefore require regular inspection before and after rainfall events, sediment removal, litter removal, repair of erosion damage, and rehabilitation of any scoured areas.</li> </ul>		
<b>Utilisation of Water Resources</b>	Negative	<ul style="list-style-type: none"> <li>• Excessive use of water to be avoided wherever possible;</li> <li>• Ensure that all water reticulation infrastructure is maintained regularly to</li> </ul>	Medium	Medium

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		avoid leaks; <ul style="list-style-type: none"> <li>• Rainwater harvesting must be implemented to collect rainwater from the drains and gutters;</li> <li>• Make use of water saving products such as water saving toilets with a dual-flush valve, water saving taps with spray cartridges, water-saver shower heads and timed turn-off taps; and</li> <li>• Monitor water consumption to ensure water is utilised within the volumes made available by any municipal regulations.</li> </ul>		
<u>Electricity Usage</u>	Negative	<ul style="list-style-type: none"> <li>• Energy saving strategies must be practiced such as using renewable energy (solar energy) wherever possible; and</li> <li>• LED lighting must be implemented to reduce electricity consumption.</li> </ul>	Medium	Medium
<u>Impact on Service Availability</u>	Negative	<ul style="list-style-type: none"> <li>• No bulk municipal water services are available in the vicinity of the development. A new 110mm diameter Water Main will have to be constructed for about 1.35 km to provide a water connection to the development. The existing size of the tie-in water main, [75mm dia uPVC water main in 10th Road; necessitates that onsite water storage must be provided. The above ground reservoir will Supply 48 Hour Storage for domestic use, as well as storage for a 2-hour firefighting supply. A booster</li> </ul>	Medium	Low

<b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b>				
POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		<p>pump will be provided to supply pressure to the network from the reservoir.</p> <ul style="list-style-type: none"> <li>No connection to the municipal sewer is available and therefore a package plant is proposed.</li> <li>For stormwater, the site will have onsite attenuation infrastructure as per the JRA guidelines, and will be discharge into a stilling basin to ensure an unconcentrated release of the stormwater discharge into the Jukskei River.</li> <li>Renewable energy options and use of energy efficient lighting and measures will be implemented.</li> </ul>		
<p><b>Traffic Impacts</b></p> <ul style="list-style-type: none"> <li>Increased traffic generation during church services, events and college operating periods.</li> <li>Pressure on local access roads and intersections.</li> </ul>	Negative	<ul style="list-style-type: none"> <li>According to the Hamatino Traffic Engineers report for the Nietgedacht X 4 township, all of the analysed intersections are currently (2025) operating at an acceptable level of service prior to development. The trip generation critical peak hour is found to be the Sunday peak hour.</li> <li>The Southernwoods / R114 Intersection upgrading (converted to a butterfly type of intersection) will sufficiently mitigate the existing and expected future delays at this intersection;</li> <li>The above-mentioned proposed upgrading will still yield sufficient capacity by the horizon year 2030, as well as the development access intersection.</li> </ul>	Medium	Low

<p><b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b></p>				
POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<ul style="list-style-type: none"> <li>• Potential congestion during peak gathering periods.</li> <li>• Increased pedestrian and vehicle interaction on and around the site.</li> <li>• Possible road safety impacts.</li> </ul>		<ul style="list-style-type: none"> <li>• Sufficient shoulder and stopping sight distances do exist at the proposed (existing) access intersection;</li> <li>• At least 735 parking bays shall be provided</li> <li>• Two accesses will be provided, both should be 7.0m wide.</li> </ul>		
<p><b>Solid Waste Pollution</b></p> <p>During the operational phase, the proposed development will produce solid waste. The incorrect management of waste will have a negative impact on the surrounding environment as it can cause</p>	Negative	Effective operational solid-waste mitigation measures for the proposed church and design college include waste minimisation at source, separation of waste streams into clearly marked containers, provision of a secure and covered waste storage area, routine collection by the municipality or an appointed contractor, diversion of recyclables and organics from landfill where feasible, separate handling of hazardous or special waste, ongoing awareness training for staff and users, and strict housekeeping to prevent littering, overflow, odour, vermin and pollution. The waste management area must be located outside environmentally sensitive areas and managed so that no waste enters stormwater systems, wetlands or watercourses.	Low	Low

<p><b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b></p>				
POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
unnecessary pollution.				
<p><b>Visual Impacts</b></p> <ul style="list-style-type: none"> <li>• Visual transformation of the site from open/peri-urban land to an institutional campus.</li> <li>• Increased visual prominence of the two-storey church building on the southward-sloping landform.</li> <li>• Visual intrusion from large parking areas, retaining structures and service infrastructure.</li> <li>• Night-time visual</li> </ul>	Negative	<ul style="list-style-type: none"> <li>• Keep the building stepped into the natural southward fall of the land. Keep the two-storey building mass broken into terrace-like components, limiting exposed retaining walls, and avoiding one tall, monolithic façade facing downslope toward the Jukskei corridor.</li> <li>• Reduce apparent height and massing by articulating the façades, breaking the roofline into smaller elements, and avoiding long unrelieved elevations.</li> <li>• Use materials and finishes that visually recede. External colours should be muted, earthy, and non-reflective, with low-glare roofing and façade materials.</li> <li>• Appropriate screening with indigenous planting, especially along the interface with the sports fields, step-down facilities, parking edges, and visible downslope elevations.</li> <li>• Revegetation of disturbed areas to improve the landscape’s visual absorption capacity by layered planting with trees and shrubs of a scale appropriate to the building.</li> <li>• Treat retaining walls, embankments, and parking platforms as visual features in their own right. Where retaining is unavoidable, walls should be broken</li> </ul>	Medium	Low

<p><b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b></p>				
POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>impacts from security and external lighting.</p> <ul style="list-style-type: none"> <li>Change in the visual character of the site as experienced from adjacent sports fields, step-down facilities and surrounding properties.</li> </ul>		<p>into smaller terraces, finished in materials that blend with the setting, and planted to soften their face and toe.</p> <ul style="list-style-type: none"> <li>Manage the parking area as a landscape element, not just a hardstand. Large open parking fields often create as much visual impact as the building. The parking should be visually broken up with tree islands, planted edges, narrowed visual corridors, and subdued lighting.</li> <li>Control night-time visual spill. Lighting should be low-height, fully shielded, warm-spectrum where feasible, and directed downward. Floodlighting of façades, rooflines, parking expanses, should be avoided.</li> <li>Screen and consolidate service infrastructure. Plant rooms, tanks, generators, refuse areas, boundary walls, and service yards should be grouped tightly and screened within the architectural composition so they do not read as scattered visual clutter.</li> </ul>		
<p><b><u>Employment Creation and Local Business Development</u></b></p> <ul style="list-style-type: none"> <li>Positive provision of a</li> </ul>	Positive impact	<p><i>Alternative 1: The preferred location and land use option for the site</i></p> <p>During the operational phase, the proposed development should seek to enhance positive socio-economic impacts by prioritising local employment and supporting local</p>		

<p><b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b></p>				
POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>place of worship and related community facilities.</p> <ul style="list-style-type: none"> <li>• Positive social benefit from Sunday school and supportive church facilities.</li> <li>• Positive educational value from the design college.</li> <li>• Potential inconvenience to neighbours due to increased activity levels, traffic and noise.</li> <li>• Change in local sense of place and land use character.</li> <li>• Job creation during</li> </ul>		<p>business development wherever reasonably possible. Although permanent employment opportunities are expected to be modest in comparison to the construction phase, the church and associated design college may generate ongoing jobs in administration, maintenance, cleaning, gardening, security, and facilities management, while also creating indirect economic opportunities for local suppliers and service providers. Procurement of goods and services from the surrounding area, support for local SMMEs, and the use of local contractors for maintenance and event-related functions should be encouraged as practical enhancement measures.</p> <p><u>Alternative 2: Alternative building technologies</u> often require new or specialized skills, such as training in sustainable materials, energy-efficient design, or green building practices. This demand for skilled labor can:</p> <ol style="list-style-type: none"> <li>Create job training programs to teach local workers how to build using alternative methods like straw bale construction, earth bag building, or prefabricated modular homes.</li> <li>Provide construction jobs for laborers, carpenters, masons, and electricians who need to adapt their skills to new materials and methods.</li> </ol>		

**Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.**

POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>construction.</p> <ul style="list-style-type: none"> <li>• Ongoing operational employment opportunities.</li> <li>• Support for local suppliers, contractors and service providers.</li> <li>• Increased viability of the property through integrated land uses.</li> <li>• Potential support for broader community work by the church group.</li> </ul>		<p>iii. Foster apprenticeships and certification programs that allow local workers to gain credentials in sustainable construction practices, helping them enter the green construction sector.</p> <p>Material Sourcing and Production: Alternative building often involves locally sourced materials such as bamboo, recycled materials, or reclaimed wood. This can:</p> <ul style="list-style-type: none"> <li>i. Create local supply chains for materials, stimulating the economy by sourcing raw materials, processing them, and manufacturing building components locally.</li> <li>ii. Provide jobs in material extraction, processing, and distribution, reducing the reliance on imported building supplies and boosting local industries.</li> <li>iii. Encourage innovation in local material development, leading to new local businesses focused on producing sustainable building materials.</li> </ul> <p>Alternative building methods emphasize energy efficiency, requiring local workers for tasks such as:</p> <ul style="list-style-type: none"> <li>i. Installing renewable energy systems (solar panels, wind turbines,</li> </ul>		

<p><b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b></p>				
POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		<ul style="list-style-type: none"> <li>geothermal systems) or energy-efficient appliances and insulation techniques, which will create jobs for installers and technicians.</li> <li>ii. Energy auditors who assess energy use and make recommendations for efficiency upgrades.</li> <li>iii. Sustainable landscaping and site preparation to support green construction projects, providing additional employment in gardening, irrigation, and landscape design.</li> </ul>		
<p><b>No Go Alternative</b>            The <b>no development / construction alternative</b> must be considered in keeping with the legal requirements (Section 24 (4) of NEMA). This implies that the site be left <i>as is</i> and that no development or alteration be done to the site. If this alternative is pursued, the existing conditions on the site will be retained.</p>				
Existing conditions and habitat on the site will be retained	Positive and negative	The no-go alternative would entail that the proposed church building, parking areas and associated service infrastructure are not developed on Portion 39 of the Farm Nietgedacht 535 JQ. This option would avoid the development related impacts on terrestrial habitat, wetland buffers, stormwater dynamics, visual character and	N/A	N/A

<p><b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b></p>				
<p><b>POTENTIAL IMPACTS:</b></p>	<p><b>Significance rating of impacts (positive or negative):</b></p>	<p><b>PROPOSED MITIGATION:</b></p>	<p><b>Significance rating of impacts after mitigation:</b></p>	<p><b>Risk of the impact and mitigation not being implemented</b></p>
		<p>operational activity levels, and would represent the lowest impact option in terms of preventing further encroachment into an identified freshwater environment.</p> <p>The no-go option would not address the site’s existing transformed condition or guarantee ecological rehabilitation of historically disturbed areas, nor would it meet the applicant’s intention to establish its main campus on the property. The no-go alternative is acknowledged as the environmentally most conservative option, but not the preferred overall alternative where the proposed development can be restricted to the least sensitive portion of the site and implemented in accordance with specialist recommendations and stringent mitigation measures.</p> <p>With regards to the potential impacts on the downstream seep wetland systems on site, if no development occurs on the northern portion of the site, the present groundwater recharge patterns and seep dynamics will remain intact, supporting wetland function and biodiversity, through the following processes:</p> <ul style="list-style-type: none"> <li>• The absence of impervious surfaces and pollutants eliminates the risk of runoff-related contamination.</li> <li>• The ecological services of the buffer zone, such as filtration and erosion</li> </ul>		

<b>Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Church Building, Parking area and civil service provision forming part of the Nietgedacht X 4 township.</b>				
POTENTIAL IMPACTS:	Significance rating of impacts (positive or negative):	PROPOSED MITIGATION:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
		control will remain at optimal capacity. <ul style="list-style-type: none"> <li>Natural succession and plant community dynamics remain undisturbed by construction or landscaping changes.</li> </ul>		



List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

- Vertebrate fauna (Mammals & Herpetofauna) Habitat Assessment
- Threatened Avifaunal Habitat Assessment
- Aquatic ecosystem delineation, Portion 39 of the farm, Nietgedacht 535, New Buildings
- Water, Sewer, Roads and Stormwater; Electrical Engineering Reports
- Traffic Impact Assessment
- Stormwater Management Plan
- Geotechnical Investigations

Describe any gaps in knowledge or assumptions made in the assessment of the environment and the impacts associated with the proposed development.

The impact assessment has been informed by the terrestrial biodiversity and wetland specialist findings currently available for the proposed church development. In undertaking the assessment, the EAP has relied on the conclusions of the appointed specialists, including the finding that the terrestrial component of the study area is of medium biodiversity sensitivity, that terrestrial habitat condition is generally low to fair, and that existing species richness is already in a declining cycle as a result of historical and ongoing environmental transformation within the study site and its surrounding context. Notwithstanding the above, the following assumptions and limitations are noted:

- The scope of this investigation is limited to assessing the environmental impacts associated with the study area;
- Wetland delineation is commonly time-bound snapshots, and do not consider long-term hydrological shifts. Precautionary buffers and avoiding edge development; is required to mitigate impacts to the wetland.
- The EAP assumes that the specialist site investigation was undertaken at an appropriate level and at a suitable time to identify the key terrestrial constraints and sensitivities relevant to the decision-making process. However, it is acknowledged that some seasonal variation in floral composition, faunal activity, and habitat use may not be fully captured by a single survey event or limited survey window.
- A conclusion that the development may proceed is expressly dependent on the implementation of the specialist mitigation measures. The EAP therefore assumes that these mitigation measures will be incorporated into the final design, construction method, and operational controls, and that compliance will be effectively monitored and enforced. If mitigation is not fully implemented, the actual impacts may be greater than those predicted in the assessment.
- The impact assessment is based on the currently proposed church building and associated parking footprint, as well as the presently understood relationship of the layout to the surrounding environmental constraints. It is assumed that the final

development footprint will remain consistent with the assessed layout. Should the footprint expand, shift, or require additional ancillary infrastructure outside the assessed area, the impact findings may need to be revisited.

- The applicant will incorporate green infrastructure, permeable surfaces, and low-carbon construction methods in design.
- It is also assumed that the applicant will comply with all legislation pertaining to the activities of this proposed project and that all permits and licenses that may be required will be identified and applied for *prior to commencement of construction activities (ie, WULA)*;
- SEC assumes that the applicant will implement the measures contained in the EMPr and will adhere to any monitoring procedures. The appointed ECO must adopt a process of continual improvement when managing and mitigating negative environmental impacts arising from the project. The EMPr will be used as the basis of environmental management and will regularly be improved and refined where applicable.

Should the project be authorised, the applicant will effect any recommendations and mitigation measures outlined in the authorization, into the detailed design and construction contract specifications of the project.

**3. IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING AND CLOSURE PHASE**

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

**Proposal: Alternative 1**

Potential impacts:	Significance rating of impacts(positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
No closure is envisioned.				

**Alternative 2**

Potential impacts:	Significance rating of impacts(positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
The decommissioning of the temporary on-site wastewater treatment plants will follow the process as prescribed in regulations. This will not be required for the foreseeable future.				

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

Not applicable.

Where applicable indicate the detailed financial provisions for rehabilitation, closure and ongoing post decommissioning management for the negative environmental impacts.

Not applicable. Decommissioning of the project is not envisaged, therefore, no provision for rehabilitation, closure or post decommissioning management has been made.

#### 4. CUMULATIVE IMPACTS

Describe potential impacts that, on their own may not be significant, but is significant when added to the impact of other activities or existing impacts in the environment. Substantiate response:

The potential cumulative impacts of the proposed church, parking and civil service provision forming part of the Nietgedacht X 4 township, are mainly tied to the fact that the site / farm small holding, is not an isolated green fields site, but a development proposed within a peri-urban Lanseria/Nietgedacht landscape already under pressure from past disturbance, nearby institutional/rural-edge uses, and an ecologically sensitive Jukskei River / wetland system.

The terrestrial specialist found the immediate study area to be of only low to fair habitat quality and of medium sensitivity. In addition, the entire farm portion is already in a broader cycle of ecological decline caused by transformation in the surrounding area. The fauna report notes that very little of the original Egoli Granite Grassland remains on site and that parts of the property have already been altered by clearing, fencing, exotic plants and buildings. In that context, the church building and large parking footprint would add another permanent loss of remaining open habitat, and cumulatively this contributes to further fragmentation of already reduced ecological space in the broader Nietgedacht/Lanseria landscape.

The greatest cumulative concern is the adjacent seep wetland systems and their connectivity to the Jukskei River along the site boundary. Wetlands along the Jukskei system are already under pressure and have in places been historically altered or displaced. Because the church and parking area are immediately adjacent to the seep wetland buffer on site, and because the stormwater, sewer and water services will cross these seep wetlands previously disturbed by historical activity, the project may cumulatively add to existing hydrological and ecological stress by increasing edge effects, disturbance, alteration of seepage pathways, and repeated intrusion into a sensitive freshwater corridor.

Hard surfaces such as roofs, parking areas and access routes increase runoff volume and speed and can worsen sediment, litter, hydrocarbon and other pollutant loading. On a site where the wetland system already drains toward the Jukskei system, this can combine with existing catchment pressures to worsen downstream water quality and channel stress. This

is especially relevant in urbanising or peri-urban river systems, where multiple small developments collectively degrade watercourses more than any single site might suggest on its own.

Seep wetlands depend on the maintenance of their natural hydrological regime, especially diffuse surface inputs and subsurface seepage. Even if the church building and parking avoids the wetland, site development next to the seep wetland buffer, plus service trenches, stormwater re-direction, level changes and compacted surfaces, can cumulatively reduce or redirect the water feeding the seep system. Because this site already shows evidence of historical hydrological alteration in disturbed areas, further infrastructure crossings may compound that legacy impact.

Portion 39 lies in a rural-edge Lanseria/Nietgedacht context between the N14 and R114, adjacent to Heron Bridge College and near other non-urban uses. The church campus, design-college function, parking provision and services would contribute to the progressive institutionalisation and urbanisation of a landscape that is still partly rural and environmentally constrained. Even where such land uses are individually justifiable, the cumulative effect can be a gradual shift from open peri-urban character to more intensive built form, more traffic, more lighting, and more service demand.

A large church with associated parking and week day college use is likely to generate periodic peaks in traffic, noise, lighting and human activity. In an area already accessed via Southernwoods Road and linked to the regional N14/R114 movement network, this may cumulatively add to local congestion, road-safety pressures and the gradual intensification of land-use activity in the precinct, especially with nearby educational uses.

## 5. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal and its alternatives may have on the environment **after** the management and mitigation of impacts have been taken into account with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

### **Proposal / Preferred Alternative / Alternative 1: Nietgedacht X 4 Church Building**

This Basic Assessment Report for the proposed church, parking and civil service provision forming part of the Nietgedacht X 4 township, has been undertaken in accordance with the EIA Regulations published in GNR 982 of 4 December 2014 of the NEMA, and amended in 2017. This process includes the required Stakeholder Engagement Process as stipulated in GNR 982, which is presently underway. This study provides an assessment of the possible positive and negative impacts that may arise from the identified activities associated with the construction and operation of the identified alternatives for development. The information contained in this report and the documentation attached hereto is supportive for the approving authority to decide in respect of the activities applied for. Where potential biophysical or social impacts have been identified, mitigation and management measures have been proposed to control and monitor the

magnitude of impacts associated with the various aspects of the activity.

Impact for Christ Ministries NPC (IFCM) would like to establish a township on Portion 39 of the Farm Nietgedacht 535 JQ, to i.) legalise the existing structures on the farm portion (presently under authorisation, through a S24G authorization process: S24G/03/25-26/0716), and ii.) to develop a church building and associated parking. The church building will be optimised to operate as a design college during the week, with the required parking for the alternating use of the building. The northeastern remainder of the small holding is not impacted by seep wetlands or buffers and is therefore the location for the new church building and parking.

Considering the technical and biophysical specialist findings, the assessment of the identified potential impacts, and the proposed management and mitigation measures, it is concluded that the proposed church building, associated parking areas, and related service infrastructure on Portion 39 of the Farm Nietgedacht 535 JQ will result in a combination of direct, indirect and cumulative impacts on the receiving environment.

The most notable potential impacts relate to the permanent transformation of terrestrial habitat within the proposed development footprint, the long-term alteration of surface water flow patterns associated with the introduction of buildings and hard surfaces on a site sloping toward the Jukskei River, and the potential for disturbance to adjacent seep wetlands and their buffer areas, particularly where stormwater, sewer and water infrastructure must traverse historically disturbed wetland areas. Additional impacts relate to visual change, increased activity intensity on Southernwoods road and the site itself, waste generation, stormwater runoff, and the ongoing operational risks associated with stormwater attenuation infrastructure and the sewer package plant located within the lower-lying wetland environments.

In terms of the types of impact, the terrestrial habitat loss and the visual transformation of the site are expected to be direct and permanent, while the effects on hydrology, wetland functioning, water quality and ecological processes will be both direct and indirect, with a potential cumulative impact due to the already transformed and increasingly pressured peri-urban setting. The construction-related impacts would generally be short- to medium-term and mostly reversible if appropriately managed, whereas most of the operational impacts associated with the church footprint, parking areas and associated infrastructure will be long-term to permanent in duration.

It is highly probable / likely, that permanent habitat transformation, increased stormwater runoff, and visual change will occur, as these are inherent consequences of the proposed land use and physical development footprint. However, the likelihood of more severe impacts, such as significant wetland degradation, sustained pollution, erosion, or major hydrological dysfunction, can be substantially reduced if the recommended mitigation measures are properly implemented and maintained throughout both the construction and operational phases. These measures include strict limitation of the development footprint to the least environmentally constrained portion of the site, the maintenance of no-go areas and wetland buffers, controlled stormwater attenuation and discharge, conservative design and management of sewer infrastructure, and ongoing monitoring and maintenance of the down slope receiving environment.

*Unmitigated* impacts associated with the preferred development will be of moderate to high significance, particularly in relation to freshwater systems, hydrological processes, and the cumulative effect of further

disturbance within a site already affected by historical transformation and ecological decline. Following the *implementation* of the prescribed avoidance, minimisation, rehabilitation and operational *management measures*, these impacts are expected in most cases to reduce to low to moderate significance, if mitigation is fully integrated into the detailed design, construction management, and operational controls of the development. Certain impacts, especially the permanent loss of transformed terrestrial habitat and the lasting visual and land use change associated with the building and parking footprint, will remain as residual impacts of moderate significance, as they cannot be fully reversed once development has taken place.

The no-go alternative would remain the environmentally most conservative option, as it would avoid the direct and indirect impacts associated with the proposed church development, particularly those affecting freshwater systems, terrestrial habitat and long-term site intensity. However, the no-go alternative would also leave the site in its current transformed state, without necessarily securing ecological rehabilitation or delivering the intended social, institutional and economic benefits associated with the proposed church and design college. The preferred alternative is therefore considered acceptable if it is confined to the least sensitive developable portion of the site and implemented in strict accordance with specialist recommendations and environmental management requirements.

Overall, it is the opinion of the EAP that the proposed development may be considered environmentally acceptable in principle, despite the presence of notable sensitivities, provided that all recommended mitigation, management and monitoring measures are fully implemented and enforced, and provided further that the wetland-related infrastructure components are authorised and managed to an appropriately high standard.

The preferred alternative is therefore considered acceptable if the identified impacts can be sufficiently avoided, reduced, managed to an acceptable level, and monitored within the context of the site’s existing transformed condition and available development area.

CONSTRUCTION PHASE		
IMPACT	ALTERNATIVE	SIGNIFICANCE <i>AFTER MITIGATION</i>
Geotechnical suitability	1	Low
Wetland and freshwater impacts	1	Moderate to Low
Bulk Earthworks: Removal of vegetation causing soil erosion, Surface-water flow impacts	1	Low
Bulk Earthworks: Site Clearance and Removal of vegetation, Terrestrial biodiversity impacts	1	Low
Invasion of alien vegetation	1	Low
Hydrocarbon spills and leaks from machinery, Construction-related impacts	1	Low
Water quality impacts	1	Low
Ground water quality	1	Low
Stormwater and drainage impacts	1	Moderate to Low
Wastewater and sewer impacts	1	Moderate to Low
Waste Management	1	Low

Material Stockpiling	1	Low
Noise and disturbance	1	Low
Visual impact	1	Low
Employment, safety and security	1	Low
Impact on Archaeological and/or Paleontological Resources	1	Low
Air quality	1	Low
Impacts on Health, Safety and Fire Risk	1	Low
Traffic Impact	1	Low
Infrastructure and services	1	Low
Employment Creation and Local Business Development	1	High positive
<b>OPERATIONAL PHASE</b>		
<b>IMPACT</b>	<b>ALTERNATIVE</b>	<b>SIGNIFICANCE AFTER MITIGATION</b>
Impact on the adjacent seep wetland by operating a development adjacent to the seep wetland buffer zone	1	Low
Impact on Surface Water flow Patterns and Surface Water Pollution	1	Low
Potential Pollution of down stream freshwater resources	1	Low
Utilisation of Water Resources	1	Low
Electricity Usage	1	Low
Impact on Service Availability	1	Low
Traffic Impacts	1	Low
Solid Waste Pollution	1	Low
Visual impact	1	Moderate
Employment Creation and Local Business Development	1	High positive

The anticipated negative impacts resulting from the construction and operation of the proposed development can be mitigated to acceptable levels such that no significant unacceptable environmental impacts are expected to remain, provided that the development is undertaken in accordance with the approved mitigation measures, specialist recommendations, and EMP requirements.

**Alternative 2: Alternative building technologies**

Alternative construction methods generally have lower environmental impacts compared to traditional methods. However, the actual impact depends on material sourcing, energy use, and waste management. Sustainable practices, such as using renewable materials (engineered laminated wood, bamboo, Straw Bales, Adobe Bricks, Recycled Plastic Bricks, reclaimed Wood and Recycled Metal, green roofs (Living Roofs, covered with vegetation to improve insulation and biodiversity), energy-efficient designs (Optimal Site Orientation, Green Roofs, Energy-Efficient Lighting, Natural Ventilation, Solar Panels, Battery Storage

Systems, Permeable Pavements) and closed-loop recycling, can mitigate negative effects.

### No-go (compulsory)

The no-go alternative would avoid the direct and permanent transformation of terrestrial habitat within the proposed building and parking footprint, as well as the direct and indirect impacts associated with altered surface-water flow patterns, increased stormwater runoff, visual intrusion, noise, traffic, waste generation, and the potential operational risks posed by attenuation infrastructure and sewage treatment components within or adjacent to the seep wetland system. It would also avoid the cumulative impacts associated with further development pressure on the seep wetlands, buffer areas, and the downstream Jukskei River system. The avoidance of these impacts would be long-term to permanent, as the site would remain undeveloped for the foreseeable future in relation to the proposed church use. The no-go alternative represents the lowest impact option from a purely environmental perspective, as it would prevent the additional habitat loss, hydrological disturbance, wetland-edge intrusion, visual change, and operational activity associated with the preferred development alternative. As such, the significance of new negative impacts on the receiving environment under the no-go alternative would be low.

However, the no-go alternative would not necessarily result in a wholly impact free or improved environmental outcome. The site is already affected by historical transformation and existing disturbance, and in the absence of the proposed development there is no certainty that these existing degraded conditions would be rehabilitated, restored, or more effectively managed. It is therefore likely that the current disturbed state of the property, including ongoing ecological decline, existing edge effects, and any informal or unmanaged disturbances, would persist over time. These ongoing baseline impacts would remain indirect, long-term, and of low to moderate significance, depending on the extent to which the site continues to be unmanaged or subject to further ad hoc disturbance.

The no-go alternative therefore remains the environmentally most conservative option, but not the option that would deliver positive broader socio-economic benefits.

## 6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

The preferred alternative entails the development of the proposed church building, associated parking areas, and related service infrastructure on the north-eastern portion of Portion 39 of the Farm Nietgedacht 535 JQ, identified as the only feasible area available for development outside the seep wetland system and associated no-go areas. The layout has been informed by the environmental constraints of the site, the slope of the land, and the need to accommodate the proposed land use within the least environmentally sensitive part of the property.

The preferred alternative will result in direct, indirect and cumulative impacts during both the construction and operational phases. The primary direct impacts relate to the permanent transformation of terrestrial habitat within the development footprint, the introduction of a substantial built form and associated parking area into the receiving environment, and the visual and functional change of the site from its current undeveloped state to an institutional land use. Indirect impacts include the potential alteration of

surface-water flow patterns, changes in runoff behaviour due to increased hard surfaces, edge effects on the adjacent seep wetland buffer, and operational risks associated with stormwater attenuation, sewer treatment infrastructure, and service crossings linked to the freshwater system. Cumulative impacts arise from the fact that the proposal would contribute to ongoing ecological and land use transformation within an already disturbed and increasingly pressured peri-urban landscape connected to the Jukskei River corridor.

Construction related impacts are expected to be short to medium-term, and manageable or reversible if appropriate mitigation is implemented. Operational impacts, however, including habitat loss, visual transformation, altered runoff characteristics, and the long-term presence of built infrastructure adjacent to wetland systems, will be long term and permanent in nature. Certain impacts, particularly those associated with the permanent footprint of the church and parking areas, cannot be fully reversed once development has occurred.

It is highly likely that some level of habitat transformation, visual change, and modified runoff behaviour will occur, as these are inherent to the proposed development. The likelihood of more significant adverse impacts, such as serious wetland degradation, persistent erosion, hydrological dysfunction, or pollution of the seep wetland and Jukskei River, can be adequately mitigated where the recommended design controls, specialist mitigation measures, buffer protection, stormwater controls, rehabilitation measures, and operational management requirements are fully implemented and maintained.

In terms of significance, the unmitigated impacts associated with the preferred alternative would in some instances be of moderate to high significance, particularly in relation to freshwater systems, hydrological alteration, and cumulative disturbance within a site already affected by historical transformation. Following the implementation of mitigation and management measures, most identified impacts are expected to reduce to low to moderate significance. Nevertheless, certain residual impacts, especially the permanent loss of transformed terrestrial habitat, the long-term visual presence of the development, and the enduring change in land use character, are expected to remain of moderate significance, as they are inherent to the development and cannot be entirely avoided.

Despite these impacts, the preferred alternative is regarded as the most appropriate development option considered, as it confines the church building to the least environmentally constrained portion of the site, responds to the site's slope and physical characteristics, and seeks to avoid direct encroachment into the core seep wetland system to the greatest extent practical. The acceptability of the preferred alternative is therefore dependent on strict adherence to all specialist recommendations, environmental authorisation conditions, water-use requirements, and EMPr obligations throughout the construction and operational life of the development.

For alternatives:

In considering alternative construction methods for the proposed church development, the assessment recognises that the site is environmentally constrained by the presence of seep wetlands, associated buffer areas, and the Jukskei River system, while also being limited by the absence of readily available bulk municipal sewer infrastructure. Alternative construction and servicing methods have been considered in

relation to the building structure, associated site works, and on site wastewater management approach.

Regarding the church building itself, no materially different construction method is considered likely to eliminate the key environmental impacts associated with the proposal, as the principal impacts arise from the presence, footprint, and operational functioning of the development, rather than from the construction material alone. Whether the building is constructed using conventional masonry and reinforced concrete, steel framing, prefabricated components, or a hybrid structural system, the main environmental effects would still relate to the permanent occupation of land, visual transformation, runoff generation, and the introduction of a long-term institutional use adjacent to a sensitive freshwater environment. The difference between these construction methods would therefore relate mainly to the scale and duration of temporary construction disturbance, material transport requirements, waste generation, and the intensity of on-site activities, rather than to a fundamentally different long-term environmental outcome.

Conventional construction methods, such as reinforced concrete and masonry, will result in greater on-site activity, longer construction periods, increased material storage requirements, and greater construction waste volumes. By contrast, more prefabricated or modular construction methods could reduce the duration of construction, the amount of on-site waste generation, and the extent of repeated heavy vehicle movement and material handling on the site. To this extent, the use of prefabricated or partially prefabricated components may offer some benefit in reducing short-term construction-phase disturbance, although this would not materially change the long-term operational footprint or the permanent transformation associated with the development.

The most significant servicing alternative relates to wastewater treatment. Owing to the lack of a municipal sewer connection near the site, a package sewer treatment plant has been identified as the practical alternative. This alternative has both advantages and risks. On the one hand, it enables the proposed development to operate in the absence of conventional municipal sewer infrastructure and can provide a self-contained treatment solution where properly designed, maintained, and monitored. On the other hand, it introduces a potentially significant operational risk in a highly sensitive freshwater setting, particularly where the package plant and associated infrastructure are proposed within historically disturbed seep wetland areas and where treated effluent will ultimately discharge toward the Jukskei River system.

The sewer package plant alternative therefore has the potential to result in direct, indirect and cumulative impacts associated with the location, operation, maintenance, and possible malfunction of the treatment system. These impacts may include localised land disturbance, changes to wetland hydrology, nutrient enrichment, pollution risk in the event of poor treatment performance or infrastructure failure, and long-term dependency on strict operational management. The significance of these impacts is strongly linked to plant design, treatment standard, hydraulic capacity, emergency storage provision, backup power, monitoring, maintenance frequency, and compliance with the applicable water use authorisation requirements. Without adequate design and management, the package plant alternative could result in impacts of moderate to high significance in relation to freshwater resources. With appropriate engineering, monitoring, containment, and operational controls, these impacts may reduce to low to moderate significance, but they cannot be regarded as insignificant due to the sensitivity of the receiving

environment.

The impacts associated with alternative building construction methods are short to medium term and relate to the construction period itself. These impacts are temporary and manageable through appropriate construction controls. By contrast, the impacts associated with the sewer package plant are long term to permanent in nature, as they continue throughout the operational life of the development and remain dependent on ongoing plant performance and environmental compliance.

It is highly likely that all construction methods would result in some degree of temporary disturbance during implementation. However, the likelihood of severe construction-phase impacts can be reduced through method selection, footprint control, waste management, access management, and strict environmental supervision. In contrast, the likelihood of operational impacts associated with the sewer package plant depends heavily on the quality of its design and management. Minor operational impacts such as maintenance access, visual presence, and routine discharge management are likely, while serious pollution events should be unlikely if the system is properly designed and managed, but remain a real risk if standards are not maintained.

Overall, the assessment indicates that alternative building construction methods may influence the extent, intensity and duration of temporary *construction impacts*, but do not fundamentally alter the long-term environmental implications of the church development. The sewer package plant, as the alternative to municipal sewer treatment, is a more environmentally significant alternative because it directly affects the long term servicing strategy of the site and introduces ongoing risks to the adjacent wetland and riverine environment. This alternative has been included because no feasible municipal sewer alternative exists in the area. The package plant must be designed, authorised, operated and monitored to a high standard in accordance with specialist recommendations and regulatory requirements.

Having assessed the significance of impacts of the proposal and alternative(s), please provide an overall summary and reasons for selecting the proposal or preferred alternative.

Having assessed the significance of the identified impacts associated with the proposed development and the relevant alternatives, it is concluded that the preferred alternative remains the development of the proposed church building, associated parking areas, and related service infrastructure on the portion of Portion 39 of the Farm Nietgedacht 535 JQ identified as the least environmentally constrained area available for development.

The assessment found that Portion 39 of the Farm Nietgedacht 535 JQ is environmentally sensitive, particularly due to the presence of seep wetlands, associated buffer areas, and the hydrological connection to the Jukskei River. The proposed church development will therefore result in several direct, indirect and cumulative impacts, particularly in relation to permanent land transformation, altered runoff behaviour, visual change, freshwater sensitivity, and the long-term operational presence of institutional infrastructure on the site. Without mitigation, some of these impacts would be of moderate to high significance, especially those associated with freshwater systems and cumulative ecological disturbance.

However, the assessment also found that the proposed church building development footprint has been directed to the only feasible developable portion of the property located outside the seep wetland system and associated no-go areas. Hence, the preferred layout is the outcome of a constraint led design process informed by the site's environmental sensitivities, gradient, and physical limitations. In this respect, the preferred alternative is considered the most appropriate development option because it avoids the most sensitive portions of the site to the greatest extent practicable, while still accommodating the intended land use.

The no-go alternative remains the environmentally most conservative option, as it would avoid the development-related impacts altogether. However, it would also leave the site in its current transformed condition, without necessarily securing rehabilitation of previously disturbed areas or delivering the religious, institutional, educational and socio-economic benefits associated with the proposed church and design college. The no-go alternative is therefore acknowledged as an important benchmark, but not the preferred overall alternative.

No materially distinct alternative layouts and design alternatives were generated, as the environmental constraints of the site were identified before a site-specific layout was developed and limited the feasible development area from the outset. The final proposal is therefore not the result of choosing between multiple equally viable layout options across the property, but rather the product of refining an established church design so that it fits within the only realistic developable portion of the site.

The assessment of the technology and servicing alternatives found that alternative building construction methods may influence the extent and duration of temporary construction impacts, but do not materially alter the long-term environmental implications of the development. The most significant servicing alternative is the use of a package sewer treatment plant in the absence of available municipal sewer infrastructure. Although this introduces long-term operational risk within a sensitive freshwater context, the assessment has concluded that this option may be acceptable if it is subject to stringent design, monitoring, management and regulatory control.

The preferred alternative has been selected because it represents the most practical, site-responsive and environmentally manageable option available to the applicant. It is preferred not because it is impact free, but because it confines development to the least sensitive portion of a constrained site, responds to identified environmental limitations from the outset, and is capable of being implemented in a manner that reduces most impacts to low to moderate significance, subject to strict mitigation and ongoing management.

Accordingly, the preferred alternative is supported by the EAP, on the basis that:

- it avoids the core seep wetland system to the greatest extent practical;
- it reflects a design process informed by environmental and topographical constraints;
- it enables the intended religious, educational and socio-economic land use to be realised on property long identified by the applicant for this purpose; and
- its impacts are considered capable of being mitigated to acceptable levels, provided that all specialist recommendations, authorisation requirements, and EMPr measures are fully

implemented and maintained.

Sufficient mitigation measures have been provided to ensure that impacts emanating from the new development are minimal. It is the reasoned opinion of the EAP that these measures can be achieved by the applicant and professional team. The proposed activities will not conflict with the general objectives of integrated environmental management laid down in the NEMA Act.

### 7. SPATIAL DEVELOPMENT TOOLS

Indicate the application of any spatial development tool protocols on the proposed development and the outcome thereof.

The following spatial planning tools were consulted:

- National Screening tool
- GDARD C-Plan V4
- Gauteng Provincial Environmental Management Framework

**Spatial data** was used to determine the agricultural potential, presence of rivers, wetlands and Ecological status of the study site. Together with the Gauteng Conservation Plan (V4) data, the presence of a wetland was identified and further investigated.

#### Gauteng Environmental Management Zones, GPEMF 2015

According to the Gauteng Environmental Management Framework (EMF) (2021), the study area falls within EMF Zone 1 (Urban development zone) and EMF Zone 2: (Normal control zone).

### 8. RECOMMENDATION OF THE PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the Environmental Assessment Practitioner as bound by professional ethical standards and the code of conduct of EAPASA).

YES	<input checked="" type="checkbox"/>
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If “NO”, indicate the aspects that require further assessment before a decision can be made (list the aspects that require further assessment):

If “YES”, please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

Based on the outcome of the impact study, it is recommended that the preferred Church building location and layout alternative is implemented, subject to the implementation of all mitigation measures as set out in this Basic Assessment Report.

- Any positive environmental authorisation is limited to the development of the church building, associated parking areas, and related service infrastructure as assessed in the BAR and supporting specialist studies only.
- No expansion of the approved footprint, infrastructure corridors, or operational areas shall take place without prior written approval from the competent authority, where required.
- No development-related activities, including temporary works, laydown areas, access routes, stockpiling, batching, parking, storage or site establishment, may occur outside the approved footprint unless specifically authorised.
- All delineated seep wetlands, watercourses, and specialist-recommended buffer areas must be treated as no-go areas, except where specifically authorised for essential service crossings.
- The wetland boundary, buffer areas, no-go areas and approved service corridors must be surveyed and physically demarcated on site prior to the commencement of any site establishment, vegetation clearing or construction works.
- No activities associated with the impeding or diverting of flow in a watercourse, or the altering of the bed, banks, course or characteristics of a watercourse, shall commence unless and until the applicable National Water Act authorisation process has been completed. The holder must ensure full compliance with all conditions of any applicable General Authorisation or Water Use Licence.
- No uncontrolled stormwater discharge may be permitted into any wetland, buffer area, drainage line or the Jukskei River. Energy dissipation and erosion protection measures must be provided at all discharge points.
- The package sewer treatment plant must be designed by a suitably qualified professional and sized to accommodate peak operational demand. The package plant must include appropriate emergency storage capacity, backup power, alarms, and fail-safe mechanisms to reduce the risk of overflow or untreated discharge. The package plant must be operated and maintained by a competent service provider. No discharge of inadequately treated effluent may be permitted.
- All areas temporarily disturbed during construction, including service corridors and wetland crossing areas, must be rehabilitated as soon as practicable after completion of the relevant works.  
Rehabilitation must include re-shaping where necessary, replacement of topsoil where available, erosion control, re-vegetation with suitable indigenous species, and alien plant control.  
A qualified Environmental Control Officer or Environmental Site Officer must be appointed for the duration of construction.
- The ECO/ESO must monitor compliance with the EMPr and the conditions of the authorisation and must keep appropriate records of inspections, non-compliances and corrective actions.
- The applicant must implement an operational maintenance plan for the stormwater system, attenuation infrastructure, package plant, manholes, pipelines and outfalls. The plan must include inspection frequencies, maintenance actions, emergency response procedures, and reporting requirements. Any failure, overflow, leakage, erosion or damage affecting the wetland system or the Jukskei River must be addressed immediately.

It is the opinion of the EAP that no fatal flaws are associated with the proposed development and that all impacts can be adequately mitigated to reduce the risk or significance of the impacts to an acceptable level. It is the opinion of the EAP that this Basic Assessment Report contains sufficient information to allow the approving authorities to make an informed decision. It is therefore recommended that the application for Environmental Authorisation should be approved on condition that the recommendations stated herein are effectively implemented.

**9. THE NEEDS AND DESIRABILITY OF THE PROPOSED DEVELOPMENT** (as per notice 792 of 2012, or the updated version of this guideline)

The proposed development is motivated by the applicant's intention to establish a church campus on the property, while also repurposing the existing structures on site to create an integrated, viable and sustainable township development. The development proposal is not limited to the construction of a place of worship only but seeks to create a broader institutional node in which the primary church use is supported by complimentary and compatible land uses that strengthen the long-term functionality, sustainability and community value of the property.

The need for the proposed development arises from the applicant's requirement for a permanent and purpose designed church facility capable of accommodating the operational, spatial and community functions of a modern place of worship. Contemporary churches typically extend beyond a main worship auditorium and include a range of ancillary spaces necessary for the effective functioning of the institution. In this instance, the inclusion of Sunday school classrooms, a mothers' room, and ablution facilities forms part of the ordinary and expected functional requirements of a larger church campus. These facilities are not separate or unrelated land uses but are directly supportive of the primary church function.

The desirability of the proposal is strengthened by the intention to repurpose existing structures on the property, rather than rely solely on entirely new built infrastructure. This contributes to a more integrated and resource-efficient form of development by retaining and adapting usable built fabric where possible, reducing unnecessary demolition and waste generation, and supporting a more efficient use of land and infrastructure already present on the site. In this regard, the proposal reflects a sustainable approach to development in that it seeks to optimise existing improvements while introducing new development where required to support the overall campus concept.

A further component of the proposal is the establishment of a design college, with its own dedicated classrooms, which will operate outside the church's hours of operation. This element contributes meaningfully to the need and desirability of the proposal by promoting more efficient use of the property over an extended period, rather than leaving the site and its infrastructure underutilised outside of worship hours.

The applicant has already made a substantial financial investment in the property. This demonstrates a clear and ongoing commitment to the property and to its orderly development. The applicant's activities and presence on the land have already contributed to job creation and support for local construction and supply industries, indicating that the development has the capacity to generate

both direct and indirect socio-economic benefits.

In South Africa, property ownership carries with it a responsibility for the upkeep, maintenance and responsible management of land. At the same time, for land markets to function equitably and for development to remain feasible, investment in property must be capable of yielding a return. In this context, the proposed development represents a practical means of ensuring that the applicant's investment in the land can be consolidated in a manner that supports continued maintenance, management and improvement of the property over time. The proposal is therefore desirable not only because it establishes a church at this location, but because it creates the basis for a financially and operationally sustainable campus that can remain functional and properly managed in the long term.

The integrated nature of the development is also important. The specific combination of land uses proposed in this application seeks to create a sustainable township environment with sufficient financial and economic stability to support the church group's broader community work. The development is expected to create employment opportunities for church members and the private sector, while also providing social and institutional facilities in a location that, although outside the urban edge, remains within convenient reach of surrounding urban communities. In this regard, the proposal is intended to serve not only the applicant and its congregation, but also the religious community, the college, and neighbouring communities more broadly.

The proposal is desirable because it promotes a more integrated and viable land use model, in which worship, education, community-supporting facilities and existing site improvements are brought together on a single property. By establishing a consolidated campus, the applicant is able to focus its investment in one location and thereby support a development that is intended to protect the environment, create employment, and contribute to the spiritual and social development of the community it serves. This is preferable to a fragmented or single-purpose approach in which the property remains underutilised or incapable of supporting the church organisation's longer-term objectives.

From a land use perspective, the supporting uses remain clearly linked to and supportive of the broader institutional character of the development. The development is not characterised by unrelated or conflicting mixed uses, but rather by a coherent campus-type model in which the different components are mutually supportive and collectively contribute to the sustainability of the site.

In summary, the proposed development is needed to provide the applicant with a permanent church facility capable of accommodating the functional requirements of a modern congregation together with associated support facilities. It is desirable because it seeks to repurpose existing structures, optimise the use of the property, consolidate the applicant's investment, create employment opportunities, support local business activity, and establish an integrated campus that combines religious, educational and community-oriented functions in a manner that is feasible, sustainable and capable of serving the surrounding area over the long term.

**10. THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED (CONSIDER WHEN THE ACITIVTY IS EXPECTED TO BE CONCLUDED)**

The authorisation should cater for the commencement of construction within 10 years from the date of authorisation. Construction activities on site must be accompanied by an Environmental Control Officer.

**Compliance Monitoring**  
 The Applicant and Contractor(s) will be responsible for monitoring all construction activities on a day-to-day basis to ensure compliance with the EA (if granted) and EMPr throughout the all phase of the proposed activities. ECO Monitoring (i.e., site inspections) should be undertaken once every two weeks, until such time that all construction activities are completed on site. When deemed necessary and at the ECO’s discretion, the frequency of the monitoring can be revised, in agreement with the competent authority if necessary.

**Environmental Audits**  
 In terms of Regulations 34 of the EIA Regulations, 2014 (as amended) the holder of the EA (if granted) must for the period during which the EA (if granted) and EMPr remain valid, conduct Environmental Audits. The Audit Report must be prepared by an independent person and must contain all the information required in Appendix 7 of the EIA Regulations, 2014 (as amended). It is recommended that an Environmental Audit be undertaken within one months after the completion of all construction on site.

**11. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)** (must include post construction monitoring requirements and when these will be concluded.)

If the EAP answers “Yes” to Point 7 above then an EMP is to be attached to this report as an Appendix

EMPr attached YES

**SECTION F: APPENDICES**

The following appendixes must be attached as appropriate (this list is inclusive, but not exhaustive). It is required that if more than one item is enclosed that a table of contents is included in the appendix.

**Appendix A1:** Locality plan(s)

**Appendix A2:** Preferred Site Layout Plan

**Appendix A3:** Church Building Aerial Overlay

**Appendix A4:** Church Building Services: Stormwater and Sewer

**Appendix B:** Photographs

**Appendix C:** Facility illustration(s)

**Appendix D:** Route position information

**Appendix E:** Public participation information

**Appendix F:** Water use license(s) authorisation, SAHRA information, service letters from municipalities, water supply information

**Appendix G: Specialist reports**

- Vertebrate fauna (Mammals & Herpetofauna) Habitat Assessment
- Threatened Avifaunal Habitat Assessment
- Aquatic ecosystem delineation, Portion 39 of the farm, Nietgedacht 535, New Buildings
- Water, Sewer, Roads and Stormwater; Electrical Engineering Reports
- Traffic Impact Assessment
- Stormwater Management Plan
- Geotechnical Investigations

**Appendix H: EMPr: *Environmental Management Programme***

**Appendix I:** Other information

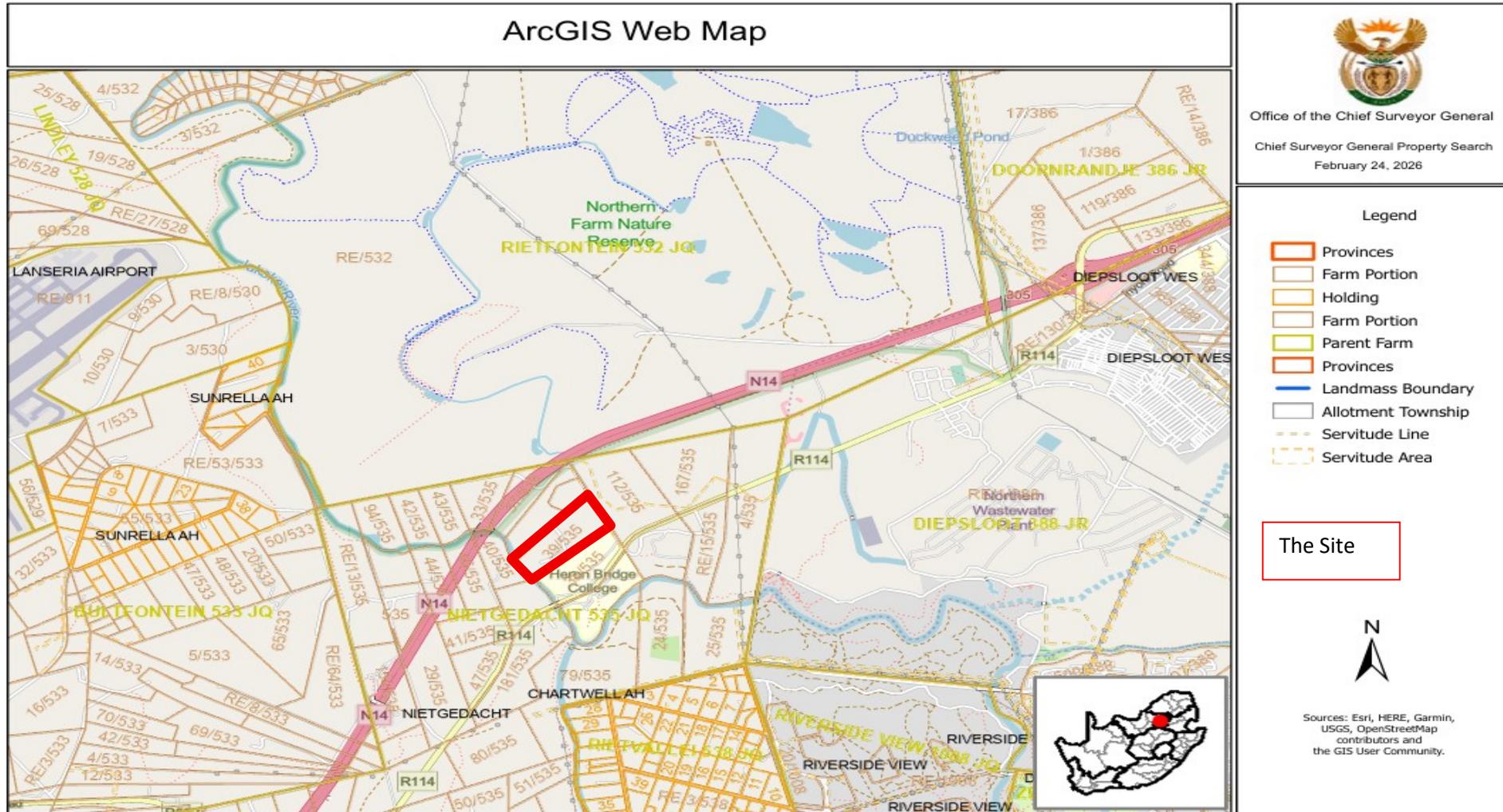
- List of Departments informed of application
- CV of the EAP
- Screening Report

**CHECKLIST**

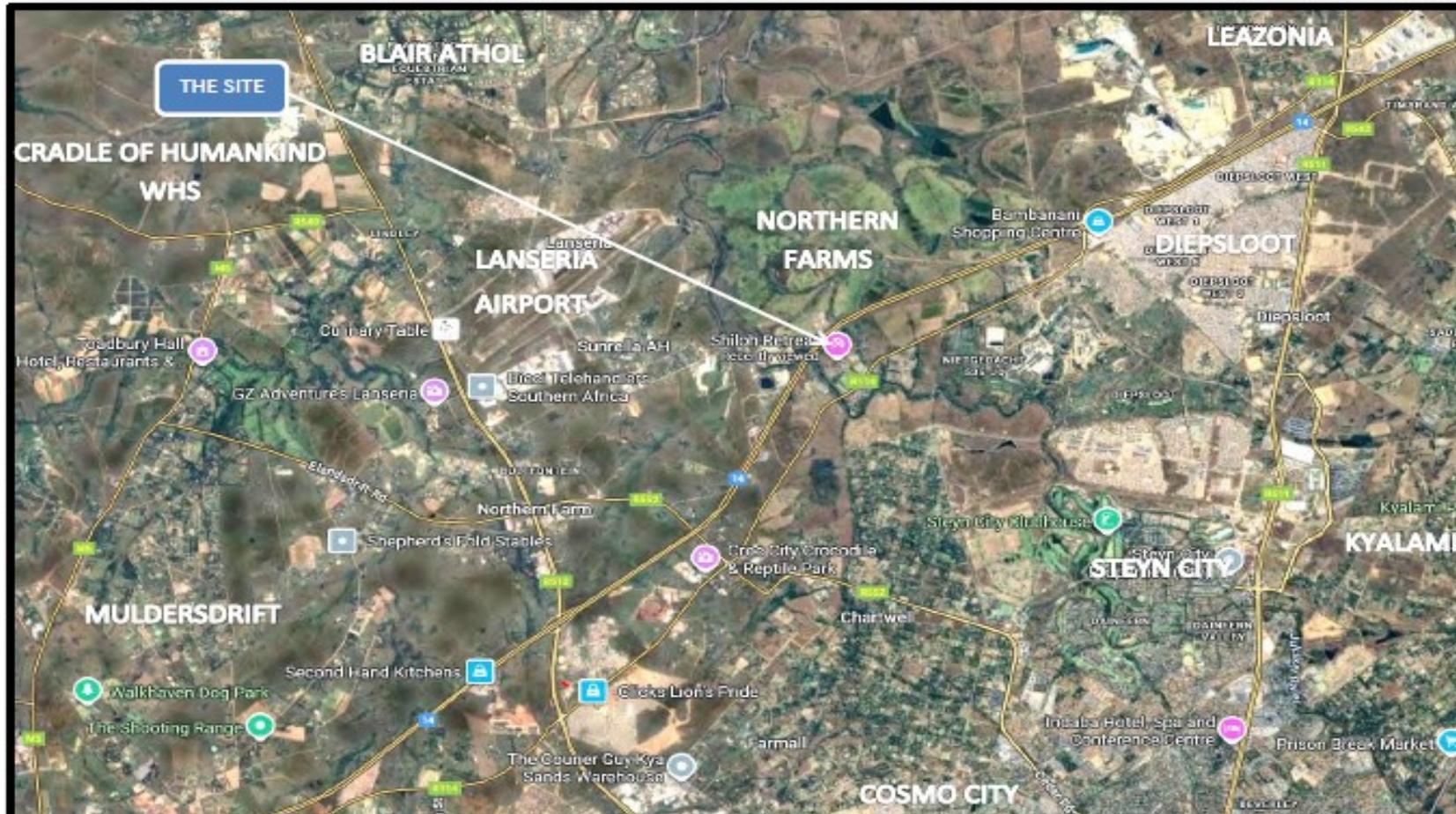
To ensure that all information that the Department needs to be able to process this application, please check that:

- Where requested, supporting documentation has been attached;
- All relevant sections of the form have been completed.

### APPENDIX A1: LOCALITY MAP



## APPENDIX A1: REGIONAL LOCALITY





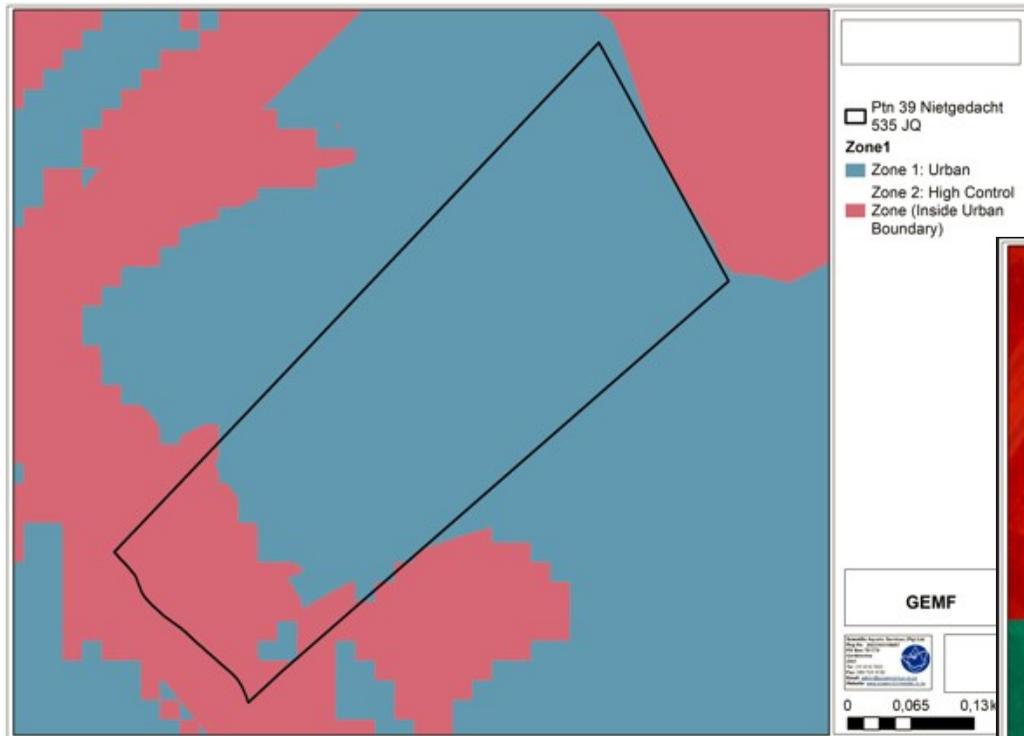
## APPENDIX A3: PROPOSED CHURCH BUILDING AERIAL OVERLAY ON PORTION 39 NIETGEDACHT 535 JQ



**APPENDIX A4: PROPOSED CHURCH BUILDING SERVICES: STORMWATER AND SEWER PACKAGE PLANT**



**APPENDIX A5: SENSITIVITY MAPS OF PORTION 39 OF THE FARM NIETGEDACHT 535 JQ**



## APPENDIX A6: THE LOCATION OF THE CHURCH AND PARKING ADJACENT TO THE SEEP WETLAND 32M BUFFER ZONE



**APPENDIX B: SITE PHOTOGRAPHS**

**NIETGEDACHT X 4: CHURCH AND PARKING AREA**



**N**



**NE**



**E**



**SE**

SW



S





**W**



**NW**

## APPENDIX C: FACILITY ILLUSTRATIONS OF THE PROPOSED CHURCH BUILDING AND PARKING AREA



**AERIAL PERSPECTIVE**



**EXTERIOR PERSPECTIVE**



**EXTERIOR PERSPECTIVE**



**EXTERIOR PERSPECTIVE**

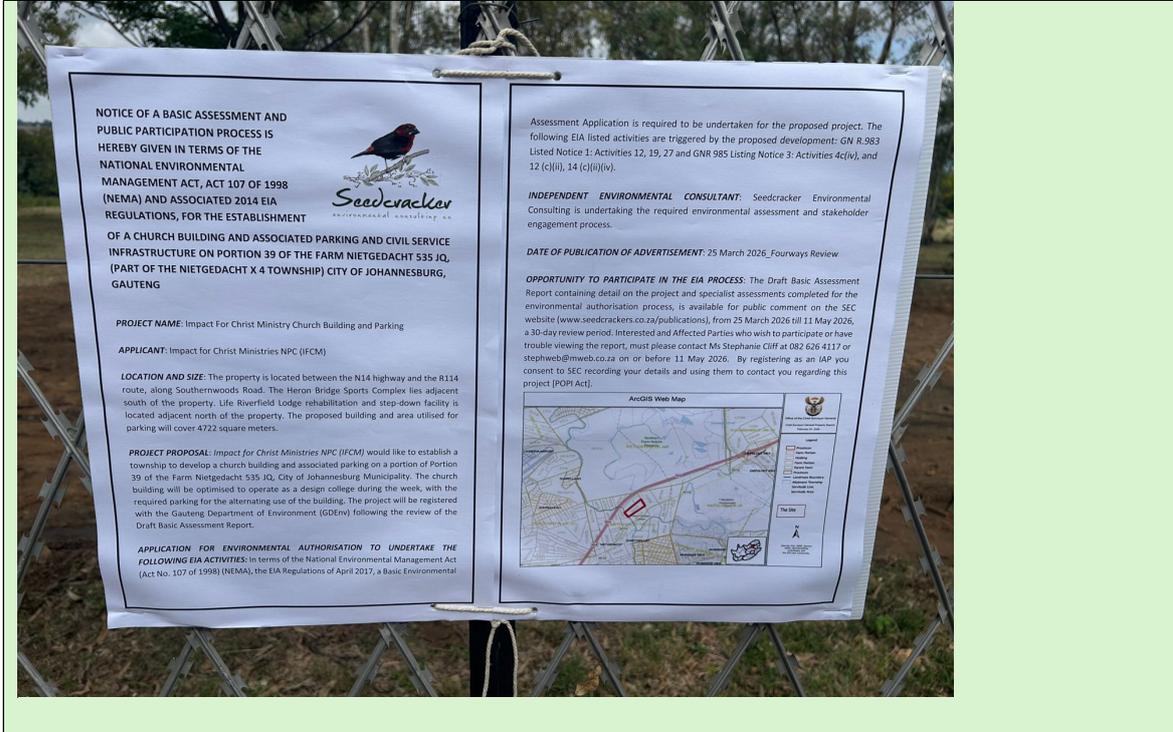
## APPENDIX D: ROUTE POSITION INFORMATION

*NOT APPLICABLE*

## APPENDIX E: PUBLIC PARTICIPATION INFORMATION

- E1: Proof of Site Notices**
- E2: Written Notices Issued**
- E3: Proof of Newspaper Advert**
- E4: Communication with I&APs**
- E5: Minutes of Meetings – N/A**
- E6: Comments and Issues Report – None required**
- E7: Comments from I&APs on BAR**
- E8: Comments from I&APs on amended BAR**
- E9: Copy of Register of I&APs**

## Appendix E1 - Proof of site notices (2 placed on southernwoods road boundary fence)





## Appendix E2 – Written notices issued to IAP’S, BID

## Appendix E3 – Proof of newspaper advertisements

**WILL BE INCLUDED IN THE FBAR**

## Appendix E4 –Communications to and from IAPS

**WILL BE INCLUDED IN THE FBAR**

## Appendix E5 – Minutes of meetings

**Not applicable**

## Appendix E6 - Comments and Responses Report

**Draft BAR out for public review**



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## Appendix E7 –Comments from I&APs on Basic Assessment (BA) Report

**Draft BAR out for public review**

## Appendix E8 –Comments from I&APs on *amendments* to the BA report

**Not Applicable**

## Appendix E9 – Copy of the register of I&APs

## Appendix E10 – Comments from I&APs on the application

**Draft BAR out for public review**



## APPENDIX G: SPECIALIST STUDIES



## VERTEBRATE FAUNA (MAMMALS & HERPETOFAUNA) HABITAT ASSESSMENT



## THREATENED AVIFAUNAL HABITAT ASSESSMENT



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**AQUATIC ECOSYSTEM DELINEATION, PORTION 39 OF THE FARM,  
NIETGEDACHT 535, NEW BUILDINGS**



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## WATER, SEWER, ROADS AND STORMWATER; ELECTRICAL ENGINEERING REPORTS



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## TRAFFIC IMPACT ASSESSMENT



## STORMWATER MANAGEMENT PLAN



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## GEOTECHNICAL INVESTIGATIONS

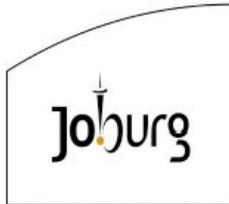


## APPENDIX H: DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME

## APPENDIX I:

### DRAFT REPORT SUBMITTED TO THE FOLLOWING AUTHORITIES FOR COMMENT:

#### COJ ENVIRONMENT



a world class African city

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City of Johannesburg

118 Jorissen Street	PO Box 1049	Tel +27(0) 11 595 4712
Traduna House	Johannesburg	
Braamfontein	South Africa	<a href="http://www.joburg.org.za">www.joburg.org.za</a>

**UNIT: IMPACT MANAGEMENT & COMPLIANCE MONITORING**



## EAP CV



## DDFE SCREENING REPORT